Industry & Entrepreneur Career Panel
Thursday, March 22 at 12 pm
Hach Hall Atrium (Rm. 1101)

Panelists:
- Dr. Kris Jonhansen, Chief Operations Officer, Startup Factory
- Jennifer E. Fredin, Principle Engineering Manager, Advanced Data Links Engineering, Rockwell Collins
- Dr. David Borts, Assistant Professor, Department of Veterinary Diagnostic and Production Animal Medicine, Iowa State University
- Dr. Loreen Stromberg, CEO & Co-Founder, NanoSpy

Bios:

Dr. Kris Johansen is a microbiologist with expertise in bacterial pathogenesis and molecular biology, and has experience in the development and validation of commercial nucleic acid extraction kits as well as nucleic acid-based detection assays for food and environmental pathogens; she also has experience in the development of drug lead compounds using a proprietary molecular evolution method. She has an extensive track record of success in the submission of SBIR/STTR (Small Business Innovation Research/Small Business Technology Transfer) grant applications, and has prepared numerous other technical documents. Dr. Johansen has technology transfer experience through assessment of commercial potential for various disclosed technologies, as well as through the preparation of marketing materials and evaluation of licensing opportunities. Since joining the Office of Economic Development and Industry Relations at Iowa State University in 2014, she has helped catalyze the university’s economic contributions through facilitating connections between faculty, staff, research centers, and other university resources with external partners and stakeholders. As its Chief Operations Officer, Dr. Johansen has also worked to energize the innovation ecosystem at Iowa State University by helping to launch the ISU Startup Factory, a 52-week intensive immersion program in entrepreneurship designed to launch successful technology-based startups. Kris is also a member of Iowa State’s I-Corps Site team, a NSF-funded program that enables faculty, staff, students and postdocs an opportunity to explore commercialization of their research innovations.

Jennie Fredin is a Pr. Engineering Manager of Advanced Data Links Engineering for Rockwell Collins located in Cedar Rapids, Iowa. In this role, Jennie is responsible for managing a group of over 70+ engineers that create solutions for a government projects portfolio of over $150M annually and also provide market direction for an additional 200 engineers. She has participated in the direct hiring of over 50 engineers and have a team of managers that have hired over 100 engineers. She also serves as the principal engineering lead for Data Link Solutions (DLS), a Rockwell Collins and BAE joint venture. She joined Rockwell Collins in 1999 and has held various engineering positions of increasing responsibility within Domestic Airborne Communications, Satellite Communications, International Communications, and Data Link Solutions. Jennie was a facilitator and teacher for the Managing Constructive Change course at Rockwell Collins and has taught over 250 leaders. She was also a semifinalist for the Rockwell Collins Government Systems Engineer of the Year award. Jennie holds a Bachelor of Science degree in Electrical Engineering from South Dakota State University, Masters of Engineering in Systems from Iowa State University, and a Master’s of Business Administration from the University of Iowa. Jennie and her husband, Mark, have been married for 15 years and have three children: Emily (12 yrs), Ellenor (9 yrs), and Thomas (6 yrs). Within the
community, Jennie has participated in the Society of Women Engineers Conferences (both regional and national), has volunteered at several schools supporting Introduce a Girl to Engineering Week activities, and is an active member in her church’s youth education programs. In her free time, she enjoys going to kids’ activities, entertaining with family and friends, and all things related to music.

**Dr. David Borts** joined the faculty at Iowa State University in March of 2016. He is an Assistant Professor in the Department of Veterinary Diagnostic and Production Animal Medicine, Section Leader for the Analytical Chemistry Services unit of the Veterinary Diagnostic Laboratory, and holds courtesy appointments in the Biomedical Sciences Department and Interdepartmental Toxicology Program at Iowa State. Dr. Borts received a BS in Chemistry from Iowa State University, an MS in Chemistry from the University of Michigan, and a PhD in Analytical Chemistry from Purdue University. Prior to his arrival at Iowa State, Dr. Borts worked in industry for 17 years with GlaxoSmithKline, BASF, and DuPont. During this time he was part of teams that brought a number of new products to market in the pharmaceutical and crop protection industries. Dr. Borts has expertise in a broad range of analytical and mass spectrometry applications including quantitative bioanalysis, structure elucidation, metabolomics, and ambient ionization techniques.

**Dr. Loreen Stromberg** comes from a background of research in foodborne pathogen detection and is passionate about providing real world solutions to food producers to minimize testing times and decreasing the risk of food-borne illness. She has a B.S. in Biochemistry and a Ph.D. in Biomedical Engineering, both from the University of New Mexico. Her graduate research (performed at Los Alamos National Laboratory and The Center for Integrated Nanotechnologies) focused on the development of biosensor surfaces for detection of pathogenic *E. coli* in the beef chain. During graduate school, she was selected for a prestigious STEC CAP internship, and won several awards for her research, including Graduate Student of the Year. Loreen is a co-inventor on multiple patents and has an extensive list of peer-reviewed publications. In 2016, she moved to ISU to begin a post doc in the biosensors lab of Dr. Jonathan Claussen and Dr. Carmen Gomes (Mechanical Engineering). In early 2017, the three colleagues formed the company NanoSpy, which focuses on using nanomaterials to develop marketable biosensors for the detection of *Salmonella* and *Listeria* in food processing plants. In addition to biosensors for food-borne pathogens, Loreen also works on methods for detection of disease in humans and animals, scalable microfluidics, and creating new materials for state of the art biosensors. Currently, Loreen is transitioning from full time post doc to full time CEO in order to raise capital to push NanoSpy forward and complete a prototype biosensor.