The NDSU Veterinary Diagnostic Laboratory (NDSU-VDL) Seminar is a day-long continuing education event hosted by NDSU VDL faculty at the Carrington REC. Its purpose is to provide current information on a variety of pertinent topics. The seminar will provide up to 8 hours of continuing education for DVMs approved by NDBVME. The CE meeting is in-person and includes hands-on training for liver biopsies in cattle and will be limited to the first 15 DVM registrations.

At NDSU Carrington Research Extension Center / 663 Hwy 281 N / Carrington, ND 58421

- Registration includes lectures, wet lab, refreshments, and lunch.

The cost is $200 per person. Session starts at 8:15 a.m. and ends at 4:30 p.m. Registration will close on June 14, 2024. Register by filling out the Registration form and sending a check to NDSU VDL.

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>8:00-8:15 a.m.</td>
<td>Registration – Receive CE receipt and certification</td>
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<tr>
<td>8:15-9:15 a.m.</td>
<td>Bovine Zoonotic and Emerging Diseases: Updates on HPAI, Salmonella and more</td>
<td>Dr. Pecoraro</td>
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<td>9:15-10:15 a.m.</td>
<td>Practical Considerations for Mineral Supplementation to Cattle</td>
<td>Dr. Hoppe</td>
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<td>10:15-10:30 a.m.</td>
<td>Break and refreshments</td>
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<tr>
<td>10:30-11:00 a.m.</td>
<td>Nutrition Research and Precision Management for Livestock</td>
<td>Dr. Tobin</td>
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<tr>
<td>11:00-12:00 p.m.</td>
<td>Bovine Necropsy Techniques and Discussion of Pathologic Lesions in Nutritional Case</td>
<td>Dr. Steichen</td>
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<td>12:00-12:45 p.m.</td>
<td>Lunch – provided</td>
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<tr>
<td>12:45-1:45 p.m.</td>
<td>Learning from Actual Field Cases</td>
<td>Dr. Stokka</td>
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<tr>
<td>1:45-4:30 p.m.</td>
<td>Mineral Analysis and Interpretation Wet lab – Hands-on training for performing liver biopsies in cattle (Carrington herd)</td>
<td>Dr. Fritz</td>
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Dr. Heidi Pecoraro, DVM, Ph.D., DACVP (anatomic)

**Director / Veterinary Pathologist / NDSU Veterinary Diagnostic Laboratory**

For over two decades I have been part of clinical and research teams in human and veterinary medicine. I was trained as a veterinary scientist at Colorado State University and received both a PhD in pathology (2012) with a focus on molecular virology of influenza viruses and a DVM (2014) tracking mixed animal medicine. Prior to my current position as director and diagnostic pathologist at the North Dakota State University Veterinary Diagnostic Laboratory (NDSU VDL), I completed two years of residency at Cornell College of Veterinary Medicine (2014-2016) and another two years of fellowship at Oregon National Primate Research Center (2016-2018). Since 2018, I have been board certified in anatomic veterinary pathology through the American College of Veterinary Pathologists. My expertise is in infectious and zoonotic diseases of animals.

Dr. Karl Hoppe, Ph.D.

**Extension Livestock Systems Specialist / Carrington Research Extension Center Coordinator - ND SARE / Sustainable Agriculture Research and Education**

Dr. Karl Hoppe is Extension Livestock Specialist and SARE Coordinator at the NDSU Carrington Research Extension Center. He started at NDSU in 1990 after completing his PhD at SDSU in Ruminant Nutrition. Karl provides extension programs and producer support on cattle production management and nutrition for cow-calf and feedlot. After cattle rations are properly balanced for energetics and protein, mineral needs are the next nutritional concern. Recently, Dr Hoppe was inducted into the Hall of Fame of the National Association of County Agricultural Agents.

Dr. Colin Tobin, Ph.D., PAS

**Animal Scientist / Carrington Research Extension Center / North Dakota State University**

Dr. Colin Tobin is the Research Animal Scientist at the NSDU Carrington Research Extension Center. He joined the center in 2021 after completing his PhD in Range Science from New Mexico State University. Colin conducts research focused on livestock nutrition, beef systems management, and precision livestock management at the Carrington Research Extension Center and grazing behavior and distribution across the Western US. Colin was selected as an American Society of Animal Science Young Scholar.
Dr. Quynn Steichen, MS, DVM

Veterinary Pathology Resident / NDSU Veterinary Diagnostic Laboratory

Dr. Steichen is a 3rd year anatomic pathology resident at NDSU Veterinary Diagnostic Laboratory. She obtained her undergraduate in animal science and master’s degree in animal science with an emphasis in ruminant nutrition and meat science from NDSU. Her master’s thesis was on supplementation of distiller grains and subsequent meat quality.

Dr. Steichen attended veterinary school at Kansas State University and graduated in 2017. She returned to North Dakota and practiced as an associate in a mixed animal clinic prior to starting her own mixed animal ambulatory practice in 2018. Dr. Steichen started her anatomic pathology residency in August 2021, and has an interest in bovine diseases.

Dr. Gerald Stokka, DVM, MS

Associate Professor Animal Sciences / Extension Veterinarian / Livestock Stewardship Specialist / North Dakota State University

Dr. Stokka is a 1982 graduate of the Iowa State University College of Veterinary Medicine. He practiced with 2 colleagues at the Cooperstown Veterinary Clinic in Cooperstown, North Dakota from 1982 to 1989. In 1989 he began and completed a Production Medicine Residency at the Kansas State University College of Veterinary Medicine in 1992. He served as Assistant Professor of clinical medicine and Feedlot Specialist in the College of Veterinary Medicine and subsequently as Associate Professor Extension Beef Veterinarian in the Department of Animal Sciences at Kansas State University until 2001. From 2001 to 2012 Dr. Stokka served as Technical Service Veterinarian for Pfizer Animal Health. Dr. Stokka is a member of the AVMA, AABP, AVC, NDVMA, ASAS, NCBA, ND Stockmen’s Association

Dr. Gerald Stokka is currently the Extension Veterinarian/Livestock Stewardship Specialist in the Department of Animal Science at North Dakota State University. His responsibilities include to develop and provide leadership for a statewide veterinary and livestock stewardship Extension program encompassing veterinary preventive medicine and health, animal husbandry and livestock stewardship, with special emphasis on the ND beef industry.
Dr. Scott Fritz, DVM, DABVT
Clinical Assistant Professor / Veterinary Toxicologist / Kansas State Veterinary Diagnostic Laboratory / Kansas State University

Dr. Scott Fritz earned his DVM from Iowa State University in 2014 after which he spent 5 years in private practice in rural South Dakota focusing on beef cattle. In 2019 Dr. Fritz started a residency in toxicology at the Kansas State Veterinary Diagnostic Laboratory with a focus on diagnostic medicine. The case load for the toxicology section at KSVDL is ~80% bovine and the top assay is trace mineral analysis in bovine liver. He has been teaching the liver biopsy procedure nationally since 2019 and has instructed over 300 veterinarians and veterinary students on the procedure. Dr. Fritz is board-certified by the American Board of Veterinary Toxicology and currently serves as a diagnostician and Clinical Assistant Professor of Toxicology at the Kansas State University College of Veterinary Medicine.

REGISTRATION FORM

- DIAGNOSTIC LABORATORY SEMINAR – JUNE 20, 2024

Name _____________________________________________ Phone ______________________

Address ________________________________________________________________________

City ________________________________ State _____________ Zip_______________________

Email ___________________________________________________________________________

Please make $200 check payable to NDSU VDL and send along with this registration form to:
Michelle Mostrom, Veterinary Diagnostic Laboratory, NDSU Dept. 7691, PO Box 6050, Fargo, ND 58108-6050. Phone: 701-231-7529