

David S. Hydock, Ph.D.

Position: Associate Professor
School of Sport and Exercise Science
College of Natural and Health Sciences
University of Northern Colorado
Greeley, CO 80639

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Education: 2005-2007
Postdoctoral Research Fellowship
University of Northern Colorado, Greeley, CO
Exercise Physiology, Cardiovascular Physiology, Cancer Rehabilitation

2005
Ph.D.
University of Northern Colorado, Greeley, CO
Exercise Physiology
Dissertation: The effects of endurance training on cardiac function and myosin heavy chain in rats receiving androgen deprivation therapy

1996
M.A.T.
Northern State University, Aberdeen, SD
Health and Physical Education

1995
B.A.
Adams State University, Alamosa, CO
English

Professional: 2014-Present
Associate Professor
University of Northern Colorado, Greeley, CO
Teaching, Research

2009-2014
Assistant Professor
University of Northern Colorado, Greeley, CO
Teaching, Research

2008-2009

Lecturer

University of Northern Colorado, Greeley, CO

Teaching, Research

2007-2008

Research Associate

University of Northern Colorado, Greeley, CO

Research, Teaching

2005-2007

Postdoctoral Research Fellow

University of Northern Colorado, Greeley, CO

Research, Teaching

2004

Program Manager, Rocky Mountain Cancer Rehabilitation Institute

University of Northern Colorado, Greeley, CO

Clinical

2001-2004

Graduate Assistant

University of Northern Colorado, Greeley, CO

Teaching, Research

1999-2001

Head Strength and Conditioning Coach/Adjunct Instructor

North Dakota State College of Science, Wahpeton, ND

Coaching, Teaching

1998-1999

Adjunct Instructor

University of Mary, Bismarck, ND

Teaching

1996-1999

Exercise Physiologist

Medcenter One Health Systems, Bismarck, ND

Clinical

1995-1996

Head Strength and Conditioning Coach/Graduate Assistant

Northern State University, Aberdeen, SD

Coaching, Teaching

Areas of

Specialization:

Exercise Physiology, Muscle Physiology, Cardiovascular Physiology, Cancer Rehabilitation

Research Interests:	Effects of exercise and nutrition interventions on skeletal muscle function and cardiac function in models of cancer treatments
Professional Memberships:	American Physiological Society, American College of Sports Medicine
Certifications:	Certified Strength and Conditioning Specialist (National Strength and Conditioning Association)
Manuscripts in Preparation:	Effects of endurance exercise on skeletal muscle function during and following doxorubicin treatment. The effects of creatine supplementation on renal antioxidant enzymes following doxorubicin treatment.
Manuscripts in Review:	The combined effect of creatine and resistance training on doxorubicin-induced muscle dysfunction
Publications:	<u>Refereed:</u> Quinn CJ, Hydock DS. Effects of endurance exercise and doxorubicin on skeletal muscle myogenic regulatory factor expression. <u>Muscle, Ligaments and Tendons Journal</u> (In Press). Sharif S, Elzaydi N, Hydock DS. Analysis of pre-participation screening protocols for football players in Europe, the United States, and Lybia: possible implications for preventing sudden cardiac death. <u>Turkish Journal of Sports Medicine</u> 52: 63-69, 2017. Bredahl EC, Hydock DS. Creatine supplementation and doxorubicin-induced skeletal muscle dysfunction: an <i>ex vivo</i> investigation. <u>Nutrition and Cancer: An International Journal</u> 69: 607-615, 2017. Quinn CJ, Gibson NM, Pfannenstiel KB, Bashore AC, Hayward R, Hydock DS. Effects of exercise on doxorubicin accumulation and multidrug resistance protein expression in striated muscle. <u>Global Journal of Medical Research</u> 16: 11-22, 2016. Quinn CJ, Burns PD, Gibson NM, Bashore A, Hayward R, Hydock DS. Effects of chronic exercise on doxorubicin-induced thymic damage. <u>Integrative Cancer Therapies</u> 15: 535-541, 2016. Bredahl EC, Quinn CJ, Pfannenstiel KB, Hayward R, Hydock DS. Effects of exercise on acute doxorubicin-induced skeletal muscle dysfunction. <u>Medicine and Science in Sports and Exercise</u> 48: 1468-73, 2016. Lien CY, Jensen BT, Hydock DS, Hayward R. Short-term exercise attenuates acute doxorubicin cardiotoxicity. <u>Journal of Physiology and Biochemistry</u> 71: 668-79, 2015.

Parry TL, **Hydock DS**, Jensen BT, Lien CY, Schneider CM, Hayward R. Endurance exercise attenuates cardiotoxicity induced by androgen deprivation and doxorubicin. Canadian Journal of Physiology and Pharmacology 92: 356-362, 2014.

Gibson NM, Quinn CJ, Pfannenstiel KB, **Hydock DS**, Hayward R. Effects of Age on Multidrug Resistance Protein Expression and Doxorubicin Accumulation in Cardiac and Skeletal Muscle. Xenobiotica 44: 472-479, 2014.

Hydock DS, Parry TL, Wymore JD, Iwaniec UT, Turner RT, Schneider CM, Hayward R. Effects of treadmill training on combined goserelin acetate and doxorubicin-induced osteopenia in female rats. Journal of Musculoskeletal and Neuronal Interactions 14: 10-18, 2014.

Jensen BT, Lien CY, **Hydock DS**, Schneider CM, Hayward R. Exercise mitigates cardiac doxorubicin accumulation and preserves function in the rat. Journal of Cardiovascular Pharmacology 62: 263-269, 2013.

Hayward R, **Hydock DS**, Gibson NM, Greufe SE, Bredahl EC, Parry TL. Tissue retention of doxorubicin and its effects on cardiac, smooth, and skeletal muscle function. Journal of Physiology and Biochemistry 69:177-187, 2013.

Gibson NM, Greufe SE, **Hydock DS**, Hayward R. Doxorubicin-induced vascular dysfunction and its attenuation by exercise preconditioning. Journal of Cardiovascular Pharmacology 62: 355-360, 2013.

Hydock DS, Lien CY, Jensen BT, Schneider CM, Hayward R. Switching to a low-fat diet attenuates the intensified doxorubicin cardiotoxicity associated with high-fat feeding. Cancer Chemotherapy and Pharmacology 71: 1551-1560, 2013.

Sato K, Fortenbaugh D, **Hydock DS**, Heise GD. Comparison of back squat kinematics between barefoot and shoe conditions. International Journal of Sports Science and Coaching 8: 571-578, 2013.

Hayward R, Iwaniec UT, Turner RT, Lien CY, Jensen BT, **Hydock DS**, Schneider CM. Voluntary wheel running does not protect against doxorubicin-mediated bone degeneration in the growing Sprague Dawley rat. Journal of Pediatric Hematology and Oncology 35: 144-148, 2013.

Hydock DS, Lien CY, Jensen BT, Parry TL, Schneider CM, Hayward R. Rehabilitative exercise in a rat model of doxorubicin cardiotoxicity. Experimental Biology and Medicine 237: 1483-1492, 2012.

Hayward R, Lien CY, Jensen BT, **Hydock DS**, Schneider CM. Exercise training mitigates anthracycline-induced chronic cardiotoxicity in a juvenile rat model. Pediatric Blood and Cancer 59: 149-154, 2012.

Sato K, Fortenbaugh D, **Hydock DS**. Kinematic changes using weightlifting shoes on barbell back squat. Journal of Strength and Conditioning Research 26: 28-33, 2012.

Hydock DS, Parry TL, Jensen BT, Lien CY, Schneider CM, Hayward R. Effects of endurance training on combined goserelin acetate and doxorubicin treatment-induced cardiac dysfunction. Cancer Chemotherapy and Pharmacology 68: 685-629, 2011.

Hydock DS, Lien, CY, Jensen, BT, Schneider, CM, Hayward, R. Characterization of the effects of in vivo doxorubicin treatment on skeletal muscle function in the rat. Anticancer Research 31: 2023-2028, 2011.

Hydock DS, Lien, CY, Jensen, BT, Schneider, CM, Hayward, R. Exercise preconditioning provides long-term protection against early chronic doxorubicin cardiotoxicity. Integrative Cancer Therapies 10: 47-57, 2011.

Hydock DS, Wonders KY, Schneider CM, Hayward R. Voluntary wheel running in rats receiving doxorubicin: effects on running activity and cardiac myosin heavy chain. Anticancer Research 29: 4401-4407, 2009.

Wonders KY, **Hydock DS**, Greufe, S, Schneider, CM, Hayward, R. Endurance training preserves cardiac function in rats receiving doxorubicin and the HER-2 inhibitor GW2974. Cancer Chemotherapy and Pharmacology 64: 1105-1113, 2009.

Hydock DS, Lien CY, Schneider CM, Hayward R. Anandamide preserves cardiac function and geometry in an acute doxorubicin cardiotoxicity rat model. Journal of Cardiovascular Pharmacology and Therapeutics 14: 59-67, 2009.

Hydock DS, Iwaniec UT, Turner RT, Lien CY, Jensen BT, Parry TL, Hayward R. Effects of voluntary wheel running on goserelin acetate-induced bone degeneration. Pathophysiology 15: 253-259, 2008.

Wonders KY, **Hydock DS**, Schneider CM, Hayward R. Acute exercise protects against doxorubicin cardiotoxicity. Integrative Cancer Therapies 7: 147-154, 2008.

Hsieh CC, Sprod, LK, **Hydock DS**, Carter SD, Hayward R, Schneider CM. Effects of a Supervised Exercise Intervention on Recovery from Treatment Regimens in Breast Cancer Survivors. Oncology Nursing Forum 35: 909-915, 2008.

Hydock DS, Lien CY, Schneider CM, Hayward R. Exercise preconditioning protects against doxorubicin-induced cardiac dysfunction by preserving myosin heavy chain composition. Medicine and Science in Sports and Exercise 40: 808-817, 2008.

Hydock DS, Lien CY, Schneider CM, Hayward R. Effects of voluntary wheel running on cardiac function and myosin heavy chain in chemically gonadectomized rats. American Journal of Physiology-Heart and Circulatory Physiology 293: H3254-H3264, 2007.

Wonders KY, **Hydock DS**, Hayward R. Time-course of changes in cardiac function during recovery after acute exercise. Applied Physiology, Nutrition, and Metabolism 32: 1164-1169, 2007.

Hayward R, **Hydock DS**. Doxorubicin cardiotoxicity in the rat: an *in vivo* characterization. Journal of the American Association for Laboratory Animal Science 46: 20-32, 2007.

Hydock DS, Wonders KY, Schneider CM, Hayward R. Androgen deprivation therapy and cardiac function: effects of endurance training. Prostate Cancer and Prostatic Diseases 9: 392-398, 2006.

Chicco A, **Hydock DS**, Schneider CM, Hayward R. Low intensity exercise training protects against doxorubicin cardiotoxicity. Journal of Applied Physiology 100: 519-527, 2006.

Hydock DS. The weightlifting pull in power development. Strength and Conditioning Journal 23: 32-37, 2001.

Hydock DS. The split position: sport specificity with a barbell. Strength and Conditioning 19: 56-59, 1997.

**Professional
Presentations:**

Refereed Presentations with Abstracts:

Busekrus RL, Capps MJ, Stewart LK, O'Brien K, Boenke C, Christensen M, **Hydock DS**. Effects of a Kefir Diet on Kidney Antioxidant Enzymes of Rats Treated with Doxorubicin. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2017. Medicine & Science in Sports & Exercise. 49: S1015, 2017.

Capps MJ, Wood NR, Busekrus RB, **Hydock DS**. Effects of Doxorubicin Treatment and Exercise on Skeletal Muscle Function and Myogenic Regulatory Factors. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2017. Medicine & Science in Sports & Exercise. 49: S773, 2017.

Torok ZT, Busekrus RB, **Hydock DS**. Effects of Creatine Supplementation on Doxorubicin-induced Myotoxicity. Thematic Poster Presentation. American College of Sports Medicine National Meeting, Denver, CO, 2017. Medicine & Science in Sports & Exercise. 49: S8, 2017.

Wood NR, Hayward R, **Hydock DS**. Effects of Endurance Training on Doxorubicin-induced Changes in Cardiac Insulin-like Growth Factor-1 Expression. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2017. Medicine & Science in Sports & Exercise. 49: S728, 2017.

Smoak P, Hayward R, **Hydock DS**, O'Brien K, Boenke C, Christensen M, Reeves K, Lisano J, Stewart JK. Kefir Alters Cardiac Function and Left Ventricular Dimensions in a Model of Doxorubicin-induced Cardiomyopathy. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2017. Medicine & Science in Sports & Exercise. 49: S1024-25, 2017.

Kugler BA, Capps MJ, **Hydock DS**. Effects of Dietary Creatine Monohydrate Supplementation and Resistance Training on Late Onset Doxorubicin-Induced Skeletal Muscle Dysfunction and MyoD Expression. Poster Presentation, Experimental Biology Meeting, Chicago, IL, 2017. The Journal of the Federation of American Societies for Experimental Biology 31: LB745, 2017.

Hydock DS, Quinn CJ. Effects of Endurance Training and Doxorubicin on Hindlimb Muscle and Diaphragm Myogenic Regulatory Factors. Poster Presentation, American College of Sports Medicine National Meeting, Boston, MA, 2016. Medicine & Science in Sports & Exercise. 48: S277, 2016.

Borges RL, Hochberg LM, Bredahl EC, **Hydock DS** Pilot Study Examining the Effects of Doxorubicin Treatment and Voluntary Wheel Running on Kidney Antioxidants. Poster Presentation, American College of Sports Medicine National Meeting, Boston, MA, 2016. Medicine & Science in Sports & Exercise. 48: S143, 2016.

Bredahl EC, **Hydock DS**. Effects of Resistance Training and Creatine Monohydrate on Doxorubicin-Induced Muscle Fatigue. Poster Presentation, American College of Sports Medicine National Meeting, Boston, MA, 2016. Medicine & Science in Sports & Exercise. 48: S277, 2016.

Hochberg LM, Borges RL, **Hydock DS**. Effects of Voluntary Wheel Running During and Following Doxorubicin Treatment on Ex Vivo Skeletal Muscle Function. Poster Presentation, Experimental Biology Meeting, San Diego, CA, 2016. The Journal of the Federation of American Societies for Experimental Biology 30:1288.17, 2016.

Bredahl EC, Quinn CJ, Hayward R, **Hydock DS**. The Effects of Exercise on Antioxidants in Doxorubicin Treated Type 2 Muscle. Poster Presentation, American College of Sports Medicine National Meeting, San Diego, CA, 2015. Medicine & Science in Sports & Exercise. 47: S647, 2015.

Hydock DS, Omar A, Bredahl EC, Quinn CJ. In vivo Skeletal Muscle Function and Doxorubicin Treatment in the Rat. Poster Presentation, Experimental Biology Meeting, Boston, MA, 2015. The Journal of the Federation of American Societies for Experimental Biology 29: 1055.21, 2015.

Hydock DS, Bredahl EC, Quinn CJ, Hayward R. Protective Effects of Endurance or Resistance Training Exercise on Chemotherapy-Induced Skeletal Muscle Weakness and Fatigue. Poster Presentation, Experimental Biology Meeting, Boston, MA, 2015. The Journal of the Federation of American Societies for Experimental Biology 29: LB660, 2015.

Quinn CJ, Bredahl EC, Hayward R, **Hydock DS**. Effect of Doxorubicin Treatment on Myogenic Regulatory Factor Protein Expression in Skeletal Muscle. Poster Presentation, Experimental Biology Meeting, Boston, MA, 2015. The Journal of the Federation of American Societies for Experimental Biology 29: 826.9, 2015.

Hochberg L, Borges R, Bredahl EC, Quinn, CJ, **Hydock DS**. Effects of Voluntary Endurance Training on Skeletal Muscle Function During and Following Doxorubicin Treatment. Poster Presentation, Experimental Biology Meeting, Boston, MA, 2015. The Journal of the Federation of American Societies for Experimental Biology 29: 1055.26, 2015.

Hydock DS, Bredahl EC, Gibson NM, Quinn CJ, Hayward R. Correlations between skeletal muscle and cardiac function in exercised and sedentary rats receiving doxorubicin. Poster Presentation, American College of Sports Medicine National Meeting, Orlando, FL, 2014. Medicine & Science in Sports & Exercise. 46: S152, 2014.

Quinn CJ, Elzaiddi NM, Gibson NM, Bredahl EC, Hayward R, **Hydock DS**. Skeletal muscle SERCA expression following doxorubicin treatment: effects of exercise. Poster Presentation, American College of Sports Medicine National Meeting, Orlando, FL, 2014. Medicine & Science in Sports & Exercise. 46: S273, 2014.

Bredahl EC, **Hydock DS**. The effects of creatine incubation on doxorubicin-induced muscle dysfunction. Poster Presentation, American College of Sports Medicine National Meeting, Orlando, FL, 2014. Medicine & Science in Sports & Exercise. 46: S370, 2014.

Parry TL, **Hydock DS**, Schneider CM, Hayward R. Effect of exercise training on tumor growth and cardiac function in the rat cancer model. Poster Presentation, American College of Sports Medicine National Meeting, Orlando, FL, 2014. Medicine & Science in Sports & Exercise. 46: S511, 2014.

Hydock DS, Bredahl EC, Gibson, NM, Quinn, CJ, Hayward R. Differential effects of endurance training and resistance training on doxorubicin-induced skeletal muscle dysfunction. Poster Presentation, Experimental Biology Meeting, San Diego, CA, 2014. The Journal of the Federation of American Societies for Experimental Biology 28: 884.5, 2014.

Quinn C, Gibson N, Bashore A, Bredahl E, Hayward R, **Hydock D**. Effect of chronic exercise on doxorubicin-induced thymic damage. Poster Presentation, Experimental Biology Meeting, San Diego, CA, 2014. The Journal of the Federation of American Societies for Experimental Biology 28: 884.4, 2014.

Pfannenstiel K, Gibson NM, Quinn CJ, **Hydock DS**, Hayward R. Aging down-regulates skeletal muscle multidrug resistance proteins and increases intramuscular doxorubicin accumulation. Poster Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2013. Medicine & Science in Sports & Exercise. 45: S17, 2013.

Parry TL, Greufe SE, Gibson NM, **Hydock DS**, Schneider CM, Hayward R. Cardiac dysfunction in the tumor bearing rat. Poster Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2013. Medicine & Science in Sports & Exercise. 45: S32, 2013.

Bredahl EC, Pfannenstiel KB, Greufe SE, Gibson NM, Quinn CJ, Schneider CM, Hayward R, **Hydock DS**. Effects of a resistance training model on doxorubicin-induced muscle dysfunction in the rat. Poster Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2013. Medicine & Science in Sports & Exercise. 45: S150, 2013.

Greufe SE, Gibson NM, Frank AJ, **Hydock DS**, Schneider CM, Hayward R. Calorie restriction and voluntary exercise extend life span of rats treated with doxorubicin. Poster Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2013. Medicine & Science in Sports & Exercise. 45: S283, 2013.

Gibson NM, Burns PD, **Hydock DS**, Schneider CM, Hayward R. Juvenile doxorubicin exposure increases cardiac progenitor cell expression in late-onset cardiotoxicities. Poster Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2013. Medicine & Science in Sports & Exercise. 45: S532, 2013.

Hydock DS, Bredahl E, Gibson N, Quinn C, Schneider CM, Hayward R. Endurance exercise and doxorubicin-induced skeletal muscle dysfunction. Poster Presentation, Experimental Biology Meeting, Boston, MA, 2013. The Journal of the Federation of American Societies for Experimental Biology 27: 712.27, 2013.

Quinn C, Gibson N, Bredahl E, Schneider C, Hayward R, **Hydock D**. Intramuscular doxorubicin accumulation and skeletal muscle fatigue: effects of prior exercise. Poster Presentation, Experimental Biology Meeting, Boston, MA, 2013. The Journal of the Federation of American Societies for Experimental Biology 27: 712.28, 2013.

Greufe SE, Gibson NM, **Hydock DS**, Schneider CM, Hayward R. Combined effects of streptozotocin and doxorubicin on cardiac function in rats. Poster Presentation, Experimental Biology Meeting, Boston, MA, 2013. The Journal of the Federation of American Societies for Experimental Biology 27: 701.8, 2013.

Gibson NM, Lien CY, Jensen BT, **Hydock DS**, Hayward R. A rat model of doxorubicin-induced late-onset cardiotoxicity. Poster Presentation, Experimental Biology Meeting, Boston, MA, 2013. The Journal of the Federation of American Societies for Experimental Biology 27: 1126.8, 2013.

Gibson NM, Pfannenstiel K, Quinn CJ, **Hydock DS**, Hayward R. Aging downregulates MRPs and increases cardiac doxorubicin accumulation. Poster Presentation, Experimental Biology Meeting, Boston, MA, 2013. The Journal of the Federation of American Societies for Experimental Biology 27: 1194.7, 2013.

Bredahl E, **Hydock D**, Iwaniec U, Turner R, Parry T, Schneider C, Hayward H. Effects of treadmill training on doxorubicin and goserelin acetate-induced bone degeneration. Poster Presentation, American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise, Westminster, CO, 2012.

Gibson N, Greufe S, **Hydock D**, Hayward R. Effects of voluntary wheel running on aortic doxorubicin accumulation and dysfunction. Poster Presentation, American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise, Westminster, CO, 2012.

Smith J, Yager J, Gibson N, **Hydock D**. A pilot study: effects of doxorubicin on hind-limb gait kinematics in rats. Poster Presentation, American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise, Westminster, CO, 2012.

Kenefick K, Smith J, Bredahl E, **Hydock D**. Rat metabolic responses during treadmill running following doxorubicin injections in sedentary and exercise trained rats. Poster Presentation, American Physiological Society Intersociety Meeting: The Integrative Biology of Exercise, Westminster, CO, 2012.

Hydock DS, Lien CY, Jensen BT, Schneider CM, Hayward R. Effects of reduced dietary fat intake on doxorubicin cardiotoxicity in previously high fat fed rats. Thematic Poster Presentation, American College of Sports Medicine National Meeting, San Francisco, CA, 2012. Medicine & Science in Sports & Exercise. 44: S138, 2012.

Greufe SE, Gibson NM, **Hydock DS**, Schneider CM, Hayward R. Effects of calorie restriction and voluntary exercise on doxorubicin-induced cardiac dysfunction. Thematic Poster Presentation, American College of Sports Medicine National Meeting, San Francisco, CA, 2012. Medicine & Science in Sports & Exercise. 44: S138, 2012.

Lien CY, **Hydock DS**, Jensen BT, Schneider CM, Gibson NM, Cheng H, Hayward R. Effect of detraining on doxorubicin-induced cardiac dysfunction. Thematic Poster Presentation, American College of Sports Medicine National Meeting, San Francisco, CA, 2012. Medicine & Science in Sports & Exercise. 44: S139, 2012.

Gibson NM, **Hydock DS**, Greufe SE, Schneider CM, Hayward R. Time course of doxorubicin accumulation and dysfunction in left ventricular tissue. Thematic Poster Presentation, American College of Sports Medicine National Meeting, San Francisco, CA, 2012. Medicine & Science in Sports & Exercise. 44: S139, 2012.

Bredahl EC, Gibson NM, Greufe SE, Pfannenstiel KB, Parry TL, Schneider CM, Hayward R, **Hydock DS**. Intramuscular doxorubicin accumulation and skeletal muscle dysfunction. Poster Presentation, American College of Sports Medicine National Meeting, San Francisco, CA, 2012. Medicine & Science in Sports & Exercise. 44: S502, 2012.

Parry TL, Iwaniec UT, Turner RT, Lien CY, Jensen BT, **Hydock DS**, Schneider CM, Hayward R. Voluntary wheel running does not protect against doxorubicin-induced osteopenia in the growing rat. Poster Presentation, American College of Sports Medicine National Meeting, San Francisco, CA, 2012. Medicine & Science in Sports & Exercise. 44: S524, 2012.

Shackelford DY, Brown JM, Lalonde TL, **Hydock DS**, Schneider CM. Validation of the Rocky Mountain Cancer Rehabilitation Institute Multistage Treadmill Protocol for cancer survivors. Poster Presentation, American College of Sports Medicine National Meeting, San Francisco, CA, 2012. Medicine & Science in Sports & Exercise. 44: S553, 2012.

Gibson NM, **Hydock DS**, Hayward R. Time course of doxorubicin accumulation and dysfunction in the rat aorta. Slide Presentation, Experimental Biology Meeting, San Diego, CA, 2012. The Journal of the Federation of American Societies for Experimental Biology. 26: 866.9, 2012

Hydock DS, Lien CY, Jensen BT, Parry TL, Schneider CM, Hayward R. Effects of In Vivo Doxorubicin Treatment on Skeletal Muscle Function. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2011. Medicine & Science in Sports & Exercise. 43: S628, 2011.

Jensen BT, **Hydock DS**, Lien CY, Schneider CM, Hayward R. Effect of Exercise Preconditioning on Doxorubicin Accumulation in Left Ventricular Tissue. Slide Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2011. Medicine & Science in Sports & Exercise. 43: S113, 2011.

Weiderspon JM, Repka, CP, Dallow K, Hayward R, **Hydock DS**, Schneider CM. Normalization of cardiovascular fitness in cancer survivors following an exercise intervention. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2011. Medicine & Science in Sports & Exercise. 43: S386, 2011.

Greufe SE, Cheng HW, Repka CP, Hayward R, **Hydock DS**, Schneider CM. The effect of cancer stage on physiological and psychological parameters following supervised exercise training. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2011. Medicine & Science in Sports & Exercise. 43: S387, 2011.

Parry TL, **Hydock DS**, Jensen BT, Lien CY, Schneider CM, Hayward R. Endurance exercise attenuates cardiotoxicity induced by androgen deprivation and doxorubicin. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2011. Medicine & Science in Sports & Exercise. 43: S456, 2011.

Lien CY, **Hydock DS**, Jensen BT, Schneider CM, Hayward R. Voluntary exercise attenuates doxorubicin-induced chronic cardiotoxicity in juvenile rats. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2011. Medicine & Science in Sports & Exercise. 43: S456, 2011.

Hydock DS, Lien CY, Jensen BT, Parry TL, Malcolm WT, Schneider CM, Hayward R. Concurrent wheel running and weekly doxorubicin treatment in the rat: effects on cardiac function. Slide Presentation, American College of Sports Medicine National Meeting, Baltimore, MD, 2010. Medicine & Science in Sports & Exercise. 42: S3, 2010.

Lien CY, **Hydock DS**, Jensen BT, Zhang H, Schneider CM, Hayward R. Use of combined preconditioning and rehabilitative exercise to alleviate chronic doxorubicin cardiotoxicity. Slide Presentation, American College of Sports Medicine National Meeting, Baltimore, MD, 2010. Medicine & Science in Sports & Exercise. 42: S3, 2010.

Jensen BT, Lin YK, **Hydock DS**, Lien CY, Takach OP, Schneider CM, Hayward R. Use of a discriminant analysis model to evaluate the protective effect of exercise against DOX mediated cardiotoxicity. Slide Presentation, American College of Sports Medicine National Meeting, Baltimore, MD, 2010. Medicine & Science in Sports & Exercise. 42: S3, 2010.

Parry TL, **Hydock DS**, Jensen BT, Lien CY, Schneider CM, Hayward R. Effects of endurance training on cardiotoxicity induced by combined treatment with doxorubicin and goserelin acetate. Thematic Poster Presentation, American College of Sports Medicine National Meeting, Baltimore, MD, 2010. Medicine & Science in Sports & Exercise. 42: S119, 2010.

Greufe SE, Wonders KY, **Hydock DS**, Schneider CM, Hayward R. Effects of exercise training on cardiac caspase expression in rats receiving doxorubicin and GW2974. Poster Presentation, American College of Sports Medicine National Meeting, Baltimore, MD, 2010. Medicine & Science in Sports & Exercise. 42: S449, 2010.

Sprod LK, Hayward R, **Hydock DS**, Schneider CM. Using Risk Level to Guide Breast Cancer Risk Reduction and Screening Recommendations. Society of Behavioral Medicine. Seattle, WA, 2010.

Hydock DS, Lien CY, Jensen BT, Parry TL, Schneider CM, Hayward R. Cardioprotective effects of voluntary wheel running during and following doxorubicin treatment. Slide Presentation, American College of Sports Medicine National Meeting, Seattle, WA, 2009. Medicine & Science in Sports & Exercise. 41: S118, 2009.

Lien CY, **Hydock DS**, Jensen BT, Schneider CM, Hayward R. Effects of exercise preconditioning against doxorubicin cardiotoxicity are affected by exercise modality and doxorubicin dose. Slide Presentation, American College of Sports Medicine National Meeting, Seattle, WA, 2009. Medicine & Science in Sports & Exercise. 41: S118, 2009.

Jensen BT, **Hydock DS**, Lien CY, Parry TL, Schneider CM, Hayward R. Effects of low vs. high intensity short-term exercise on doxorubicin-induced cardiotoxicity. Slide Presentation, American College of Sports Medicine National Meeting, Seattle, WA, 2009. Medicine & Science in Sports & Exercise. 41: S84, 2009.

Parry TL, Wilkerson, G, **Hydock DS**, Jensen BT, Lien CY, Schneider CM, Hayward R. Histological evaluation of doxorubicin-induced cardiotoxicity in exercise trained rats. Poster Presentation, American College of Sports Medicine National Meeting, Seattle, WA, 2009. Medicine & Science in Sports & Exercise. 41: S218, 2009.

Hydock DS, Lien CY, Jensen BT, Schneider CM, Hayward R. Late onset doxorubicin-induced cardiac dysfunction is attenuated in exercise preconditioned rats. Slide Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2008. Medicine & Science in Sports & Exercise. 40: S95, 2008.

Lien CY, **Hydock DS**, Jensen BT, Schneider CM, Hayward R. Low-intensity, low-frequency exercise protects against DOX-induced cardiac dysfunction in rats. Slide Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2008. Medicine & Science in Sports & Exercise. 40: S94, 2008.

Jensen BT, **Hydock DS**, Lien CY, Schneider CM, Hayward R. Effects of short-term exercise on doxorubicin-induced cardiotoxicity. Slide Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2008. Medicine & Science in Sports & Exercise. 40: S95, 2008.

Parry TL, **Hydock DS**, Iwaniec UT, Turner RT, Lien CY, Jensen BT, Hayward R. Effects of goserelin acetate and voluntary wheel running on bone morphology in female rats. Slide Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2008. Medicine & Science in Sports & Exercise. 40: S82, 2008.

Repka CP, Sprod LK, Hsieh CC, **Hydock DS**, Carter SD, Hayward R, Schneider CM. Health-related fitness and quality of life in cancer survivors. Slide Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2008. Medicine & Science in Sports & Exercise. 40: S113, 2008.

Hydock DS, Lien CY, Schneider CM, Hayward R. Effects of voluntary wheel running on cardiac function in female rats receiving chemical ovariectomy. Slide Presentation, American College of Sports Medicine National Meeting, New Orleans, LA, 2007. Medicine & Science in Sports & Exercise. 39: S53, 2007.

Hayward R, Lien CY, Schneider CM, **Hydock DS**. Effects of prior endurance training on acute doxorubicin-induced cardiotoxicity. Slide Presentation, American College of Sports Medicine National Meeting, New Orleans, LA, 2007. Medicine & Science in Sports & Exercise. 39: S53, 2007.

Wonders KY, Greufe SE, **Hydock DS**, Schneider CM, Hayward R. Effects of endurance training on cardiac function in rats receiving GW2974 and doxorubicin. Slide Presentation, American College of Sports Medicine National Meeting, New Orleans, LA, 2007. Medicine & Science in Sports & Exercise. 39: S64, 2007.

Hydock DS, Wonders KY, Schneider CM, Hayward R. Endurance training protects against prostate cancer treatment-induced cardiac dysfunction. Slide Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2006. Medicine and Science in Sports and Exercise. 38: S83, 2006.

Wonders KY, **Hydock DS**, Greufe SE, Schneider CM, Hayward R. Effects of doxorubicin and EGFR/ErbB2 inhibitors on cardiac function. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2006. Medicine and Science in Sports and Exercise. 38: S534, 2006.

Lien CY, Wonders KY, **Hydock DS**, Schneider CM, Hayward R. Time course of cardiac function and oxidative stress induced by an acute bout of exercise. Poster Presentation, American College of Sports Medicine National Meeting, Denver, CO, 2006. Medicine and Science in Sports and Exercise. 38: S419, 2006.

Hydock DS, Wonders KY, Chicco AJ, Schneider CM, Hayward R. Voluntary wheel running in rats receiving doxorubicin treatment: Effects on myosin heavy chain. Poster Presentation, American College of Sports Medicine National Meeting, Nashville, TN, 2005. Medicine and Science in Sports and Exercise 37: S439, 2005.

Roozeboom MA, Carter SD, **Hydock DS**, Schneider CM. Muscular strength and endurance alterations in cancer patients. Slide Presentation, American College of Sports Medicine National Meeting, Indianapolis, IN, 2004. Medicine and Science in Sports and Exercise 36: S98, 2004.

Hydock DS, Carter SD, Drum SN, Roozeboom MA, Schaffer JR, Hayward R, Schneider CM. The exercise response is patient specific, not cancer specific. Slide Presentation, American College of Sports Medicine National Meeting, San Francisco, CA, 2003. Medicine and Science in Sports and Exercise 35: S398, 2003.

Drum SN, Carter SD, Roozeboom MA, **Hydock DS**, Schaffer JR, Knofczynski GT, Hayward R, Schneider CM. Exercise intervention and the effect on cancer patients. Slide Presentation, American College of Sports Medicine National Meeting, San Francisco, CA, 2003. Medicine and Science in Sports and Exercise 35: S398, 2003.

Regional Presentations:

Busekrus RB, Capps CJ, Stewart LK, O'Brien K, Boenke C, Christensen M, **Hydock DS**. Effects of a kefir diet on kidney antioxidant enzymes of rats treated with doxorubicin. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Greeley, CO, 2017.

Capps CJ, Wood NR, Busekrus RB, **Hydock DS**. Effects of doxorubicin treatment and exercise on skeletal muscle function and myogenic regulatory factors. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Greeley, CO, 2017.

Kugler BA, Capps MJ, Busekrus RB, Mathias A, **Hydock DS**. Effects of dietary creatine monohydrate supplementation on late onset doxorubicin-induced skeletal muscle dysfunction. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Greeley, CO, 2017.

Torok ZA, Busekrus RB, **Hydock DS**. Effects of creatine supplementation on doxorubicin-induced myotoxicity. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Greeley, CO, 2017.

Wood NR, Hayward, **Hydock DS**. Effects of endurance exercise training on doxorubicin-induced changes in cardiac insulin-like growth factor-1 expression. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Greeley, CO, 2017.

Bredahl EC, **Hydock DS**. The effects of creatine incubation on doxorubicin-induced muscle dysfunction. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Denver, CO, 2014.

Parry TL, **Hydock DS**, Hayward R. Effect of aerobic exercise training on cancer induced cardiac dysfunction. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Denver, CO, 2014.

Bredahl EC, Pfannenstiel KB, Greufe SE, Gibson NM, Quinn CJ, Schneider CM, Hayward R, **Hydock DS**. Effects of a resistance training model on doxorubicin-induced muscle dysfunction in the rat. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Denver, CO, 2013.

Parry TL, Greufe SE, Gibson NM, **Hydock DS**, Schneider CM, Hayward R. Cardiac Dysfunction in the tumor bearing rat. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Denver, CO, 2013.

Gibson NM, Burns PD, **Hydock DS**, Schneider CM, Hayward R. Juvenile doxorubicin exposure increases cardiac progenitor cell expression in late-onset cardiotoxicities. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Denver, CO, 2013.

Bredahl EC, Gibson NM, Greufe SE, Pfannenstiel KB, Parry TL, Schneider CM, Hayward R, **Hydock DS**. Intramuscular doxorubicin accumulation and skeletal muscle dysfunction. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Colorado Springs, CO, 2012.

Greufe SE, Gibson NM, **Hydock DH**, Schneider CM, Hayward R. Effects of calorie restriction and voluntary exercise on doxorubicin-induced cardiac dysfunction. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Colorado Springs, CO, 2012.

Parry TL, Iwaniec UT, Turner RT, Lien CY, Jensen BT, **Hydock DS**, Schneider CM, Hayward R. Voluntary wheel running does not protect against doxorubicin-induced osteopenia in the growing rat. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Colorado Springs, CO, 2012.

Shackleford DY, Brown JM, Lalonde TL, **Hydock DS**, Schneider CM. Validation of the Rocky Mountain Cancer Rehabilitation Institute Multistage Treadmill Protocol for cancer survivors. Poster Presentation, Rocky Mountain American College of Sports Medicine Annual Meeting, Colorado Springs, CO, 2012.

Parry TL, **Hydock DS**, Jensen, BT, Lien CY, Schneider CM, Hayward R. Endurance exercise attenuates cardiotoxicity induced by androgen deprivation and doxorubicin. Poster and Slide Presentation, Rocky Mountain American College of Sports Medicine Regional Meeting, Fort Collins, CO, 2011.

Weiderspon JM, Repka CP, Dallow K, Hayward R, **Hydock DS**, Schneider CM. Normalization of cardiovascular fitness in cancer survivors following an exercise intervention. Poster Presentation, Rocky Mountain American College of Sports Medicine Regional Meeting, Fort Collins, CO, 2011.

Jensen BT, **Hydock DS**, Lien CY, Schneider CM, Hayward R. Effects of short-term exercise on doxorubicin-induced cardiotoxicity. Poster Presentation, Rocky Mountain American College of Sports Medicine Regional Meeting, Estes Park, CO, 2008.

Lien CY, **Hydock DS**, Jensen BT, Schneider CM, Hayward R. Low-intensity, low-frequency exercise protects against DOX-induced cardiac dysfunction in rats. Poster Presentation, Rocky Mountain American College of Sports Medicine Regional Meeting, Estes Park, CO, 2008.

Parry T, **Hydock DS**, Iwaniec UT, Turner RT, Lien CY, Jensen BT, Hayward R. Effects of goserelin acetate and voluntary wheel running on bone morphology in female rats. Poster Presentation, Rocky Mountain American College of Sports Medicine Regional Meeting, Estes Park, CO, 2008.

Repka CP, Sprod LK, Hsieh CC, **Hydock DS**, Carter, SD, Hayward, R, Schneider, CM. Health-related fitness and quality of life in cancer survivors. Poster Presentation, Rocky Mountain American College of Sports Medicine Regional Meeting, Estes Park, CO, 2008.

Jensen BT, **Hydock DS**, Schneider CM, Hayward R. Endurance training protects against *ex vivo* doxorubicin induced cardiotoxicity four weeks post administration. Poster Presentation, Rocky Mountain American College of Sports Medicine Regional Meeting, Colorado Springs, CO, 2007.

Lien CY, **Hydock DS**, Schneider CM, Hayward R. Endurance training protects against *in vivo* and *ex vivo* doxorubicin cardiotoxicity. Poster Presentation, Rocky Mountain American College of Sports Medicine Regional Meeting, Colorado Springs, CO, 2007.

Wonders KY, **Hydock DS**, Hayward R. Acute exercise and cardiac dysfunction. Poster and Slide Presentation, Rocky Mountain American College of Sports Medicine Regional Meeting, Estes Park, CO, 2006.

Hydock DS, Wonders KY, Chicco AJ, Schneider CM, Hayward R. Voluntary wheel running in rats receiving doxorubicin treatment: effects on myosin heavy chain. Poster and Slide Presentation, American College of Sports Medicine Rocky Mountain Chapter Regional Meeting, Colorado Springs, CO, 2005.

Hydock DS, Carter SD, Drum SN, Roozeboom MA, Schaffer JR, Hayward R, Schneider CM. The exercise response is patient specific, not cancer specific. Poster Presentation, American College of Sports Medicine Rocky Mountain Chapter Regional Meeting, Denver, CO, 2003.

Invited:

Hydock DS. Exercise and cancer treatment-related side effects. American Cancer Society Relay for Life Kickoff, Brighton, CO, 2015

Hydock DS. Exercise and cancer treatment-related side effects. American Cancer Society-Weld County Leadership Council, Greeley, CO, 2014

Hydock DS. Cancer treatment toxicities and exercise. American Cancer Society-Wyoming Chapter Day of Hope Meeting, Cheyenne, WY, 2014

Hydock DS. Exercise and cancer treatment-related side effects (community lecture). American Cancer Society Relay for Life Kickoff, Fort Collins, CO, 2013

Hydock DS. Exercise and cancer treatment-related side effects (professional lecture) and cancer rehabilitation (community lecture). Annual Elsa U. Pardee Memorial Cancer Lecture, MidMichigan Medical Center, Midland, MI, 2011

Hydock DS. Exercise and cancer treatment-related side effects. Colorado State University, Department of Health and Exercise Science seminar. Fort Collins, CO, 2010

Hydock DS. Implementing functional resistance training into a cancer rehabilitation exercise prescription. Rocky Mountain Cancer Rehabilitation Institute Cancer Exercise Specialist Workshop. Greeley, CO, 2005, 2006, and 2008.

Hydock DS. Exercise and cancer treatment-induced cardiac dysfunction. University of Minnesota Medical School, Duluth seminar. Duluth, MN, 2008.

Hydock DS. Periodization of strength training: implementing a performance-based approach. Five Star Strength and Conditioning Clinic. Westminster, CO, 2008.

Hydock DS. Exercise and cancer treatment-induced cardiac dysfunction. Rocky Mountain Cancer Rehabilitation Institute Cancer Exercise Specialist Workshop. Greeley, CO, 2007.

Hydock DS. Side effects of androgen deprivation therapy in prostate cancer patients. University of Northern Colorado Community Health 560 course (Scientific Foundations of Health Promotion/Disease Prevention), Greeley, CO, 2004.

Hydock DS. Side effects of androgen deprivation therapy in prostate cancer patients. North Colorado Medical Center Man to Man Prostate Cancer Support Group, Greeley, CO, 2003.

Hydock DS. Rocky Mountain Cancer Rehabilitation Institute Program Overview. North Colorado Medical Center Man to Man Prostate Cancer Support Group, Greeley, CO, 2002.

Hydock DS. The weightlifting pull in power development. University of North Dakota Strength and Conditioning Clinic, Grand Forks, ND, 2001.

Hydock DS. Teaching progression for the jerk. National Strength and Conditioning Association North and South Dakota Combined State Clinic, Bismarck, ND, 1998.

Hydock DS. Teaching progression for the snatch and clean. National Strength and Conditioning Association North and South Dakota Combined State Clinic, Fargo, ND, 1997.

**Graduate Student
Committees:**

Doctoral:

2017, Coronado C, Dissertation, Committee Member

2017, King A (School of Biological Sciences), Committee Member

2016, Coronado C, Comprehensive Exam, Committee Member

2016, Manikowske TL, Dissertation Title: “Effects of Exercise Training on Physiological and Psychological Measurements of Cancer-Related Fatigue”, Committee Member

2016, Brown JM, Dissertation Title: “Evaluation of the Phase Training Model of Cancer Rehabilitation”, Committee Member

2016, Dames KD, Dissertation Title: “Barefoot vs. Shod: Effects of Trunk Loading and Body Mass Index on Walking Mechanics”, Committee Member

2015, Manikowske TL, Comprehensive Exam, Committee Member

2015, Ferris AE, Dissertation Title “Biomechanical Assessment of Ertl and Burgess Transtibial Amputation Techniques”, Committee Member

2015, Bredahl EC, Dissertation Title “Effects of Resistance Training and Creatine Monohydrate on Doxorubicin-Induced Muscle Dysfunction”, Advisor

2015, Quinn CJ, Dissertation Title “Effects of Exercise Training and Doxorubicin on Myogenic Regulatory Factors”, Advisor

2015, Pfannenstiel KB, Dissertation Title: “Effects of Resistance Exercise Training on Doxorubicin-Induced Cardiotoxicity”, Committee Member

2015, Dames KD, Comprehensive Exam, Committee Member

2015, Brown JM, Comprehensive Exam, Committee Member

2015, Peterson BM, Dissertation Title: “The Effects of a 12-week Aerobic and Cognitive Training Intervention on Cognitive Function in Cancer Survivors”, Committee Member

2015, Shackelford D, Dissertation Title: “Validation of the Rocky Mountain Cancer Rehabilitation Institute Multistage Treadmill Protocol for Cancer Survivors”, Committee Member

2014, Ferris A, Comprehensive Exam, Committee Member

2014, Parry TL, Dissertation Title: “The Effect of Endurance Exercise on Cardiac Function, Doxorubicin Accumulation, and Treatment Efficacy in the Tumor Bearing Rat”, Committee Member

2014 Shackelford, D, Comprehensive Exam, Committee Member

2014, Repka CP, Dissertation Title: “Oxidative Stress Alterations Following an Exercise Intervention in Cancer Survivors”, Committee Member

2014, Cheng HW, Dissertation, Committee Member

2013-2014, Quinn, CJ, Comprehensive Exam, Chair

2013, Bredahl EC, Comprehensive Exam, Chair

2013, Greufe SE, Dissertation Title: “Effect of Endurance Exercise on the Combination of STZ-Induced Diabetes and Doxorubicin”, Committee Member

2013, Gibson NM, Comprehensive Exam, Committee Member

2013, Pfannenstiel KB, Comprehensive Exam, Committee Member

2011-2012, Parry TL, Comprehensive Exam, Committee Member

2011-2012, Peterson BM, Comprehensive Exam, Committee Member

2011, Peterson SE, Comprehensive Exam, Committee Member

2011, Jensen BT, Dissertation Title: “The Effects of Exercise on Cardiac Function and Doxorubicin Accumulation in Left Ventricular Tissue of Rats”, Committee Member

2010, Lien CY, Dissertation Title: “Effects of Exercise on Doxorubicin-Induced Chronic Cardiotoxicity in a Juvenile Rat Model”, Committee Member

2010, Sato K, Dissertation Title, “Influence of Weight Distribution Asymmetry on Biomechanics of Barbell Back Squat”, Committee Member

2010, Repka CP, Comprehensive Exam, Committee Member

2009, Sprod LM, Dissertation Title: “The Rose Project: A Surveillance-Modeling Network Assessment Tool to Increase Awareness, Offer Effective Prevention, and Enhance Early Detection and Treatment of Breast Cancer”, Committee Member

2009, Sato K, Comprehensive Exam, Committee Member

2008, Lien CY, Comprehensive Exam, Committee Member

2008, Jensen BT, Comprehensive Exam, Committee Member

Master's:

2017-2018, Jones M, Thesis, expected graduation August 2018, Chair

2017-2018, Ahn W, Thesis, expected graduation August 2018, Chair

2017, Kugler BA, Thesis Title: “Effects of Dietary Creatine Monohydrate Supplementation and Resistance Training on Late Onset Doxorubicin-Induced Myotoxicity”, Chair. ***Dean’s Citation for Outstanding Thesis, May 2017.***

2017, Mathias AB, Thesis Title: “The Effects of Doxorubicin on Ryanodine and Dihydropyridine Receptor Expression in Soleus Muscle”, Chair

2017, Schumacher AN, Thesis Title: “Validation of the Six-Minute Walk Test for Predicting Peak Oxygen Consumption in Cancer Survivors”, Committee Member.

2016-2017, Capps MJ, Thesis, expected graduation December 2017, Chair

2016, Borges RL, Thesis Title: “The Effects of Creatine Supplementation on Renal Antioxidant Enzymes Following Doxorubicin Treatment”, Chair

2016, Hochberg LM, Thesis Title: “The Effects of Endurance Exercise on In Vivo and Ex Vivo Skeletal Muscle Function During and Following Doxorubicin Treatment”, Chair

2016, Somerville S, Thesis Title: “Effects of a Twelve Week Aerobic and Strength Training Intervention on Chemotherapy-Induced Peripheral Neuropathy”, Committee Member

2016, Kenefick K, Thesis Title: “Rat Metabolic Responses During Treadmill Running Following Doxorubicin Injections in Sedentary and Exercise Trained Rats”, Committee Member

2015, Omar AK, Thesis Title: “The Effects of Doxorubicin on *In Vivo* Skeletal Muscle Function in the Rat”, Chair

2015, Brenneke A, Thesis Title: “Effects of a Twelve Week Aerobic and Cognitive Training Intervention on Cognitive Function in Apparently Healthy Older Adults”, Committee Member

2014, Beebe C, Thesis Title: “Effects of a Twelve-Week Aerobic and Cognitive Training Intervention on Cognitive Function in Cancer Survivors Following Radiation Therapy”, Committee Member

2014, Anderson K, Thesis Title: “Effects of Endurance Exercise and Doxorubicin on Skeletal Muscle Force and Fatigue”, Chair

2013, Elzaidi N, Thesis Title: “The Effects of Doxorubicin and Treadmill Exercise on Skeletal Muscle Calcium Handling Proteins”, Chair

2012, Yager J, Thesis Title: “A Pilot Study: Acute Effects of Doxorubicin on Hind-limb Gait Kinematics in Rats”, Chair

2010, Dinsmore LE, Thesis Title: “Physiologic, Psychologic, and Oxidative Stress responses to Multimodal Exercise in an Endometrial Cancer Survivor Undergoing High-Dose Chemotherapy: A Case Study”, Committee Member

2010, Brown (Weiderspon) JM, Thesis Title: “The Effects of a High-Intensity Resistance Training Program on Muscular Strength, Muscular Endurance, and Psychological Measures in Cancer Survivors”, Committee Member

2010, Maxey T, Thesis Title: “Acute Effects of Doxorubicin on Rat Skeletal Muscle Function”, Chair

2010, Zhang H, Thesis Title: “Downregulation of peroxisome proliferator-activated receptor- γ coactivator 1-alpha (PGC-1 α) is not associated with doxorubicin induced cardiotoxicity”, Chair

2010, Malcolm W, Thesis Title: “Effects of Exercise on Plasma Creatine Kinase in Juvenile Rat Doxorubicin Cardiotoxicity Model”, Committee Member

2009, May C, Thesis Title: “The Effects of Doxorubicin and Goserelin Acetate on Skeletal Muscle Myosin Heavy Chain: Effects of Endurance Training.” Chair

Teaching:

Courses Taught:

Exercise Physiology I, SES 322 (Undergraduate)
School of Sport and Exercise Science
University of Northern Colorado

Exercise Physiology II, SES 324 (Undergraduate)
School of Sport and Exercise Science
University of Northern Colorado

Advanced Functional Assessment of Strength and Conditioning,
SES 480 (Undergraduate)
School of Sport and Exercise Science
University of Northern Colorado

Exercise Assessment and Programming, SES 490 (Undergraduate)
School of Sport and Exercise Science
University of Northern Colorado

Advanced Laboratory Techniques in Exercise Physiology, SES 625
(Graduate)
School of Sport and Exercise Science
University of Northern Colorado

Metabolism, SES 626 (Graduate)
School of Sport and Exercise Science
University of Northern Colorado

Muscle Physiology, SES 627 (Graduate)
School of Sport and Exercise Science
University of Northern Colorado

Cardiopulmonary Physiology, SES 629 (Graduate)
School of Sport and Exercise Science
University of Northern Colorado

Evaluation and Measurement of Physical Education, PED 330 (Undergraduate)
Department of Physical Education and Dance
University of Mary

**Grants
Funded:**

Hydock DS (PI). Effects of endurance training and resistance alone or in combination on doxorubicin myotoxicity. University of Northern Colorado Faculty Research and Publications Board New Project Program. \$5,000, fall 2016.

Hydock DS (PI). Effects of creatine supplementation on doxorubicin-induced muscle weakness and fatigue. University of Northern Colorado Provost Research, Dissemination, and Faculty Development Award. \$9,912, spring 2015.

Hydock DS. RMACSM Student Development Grant. American College of Sports Medicine Regional Chapter Grant Program. \$2,000, 2015.

Frietze SE (PI), Lerach DG (Co-PI), **Hydock DS** (Co-PI), Mostowfi M (Co-PI), Flynn WJ (Co-PI). Acquisition of a high performance computing cluster for multidisciplinary research and education at the University of Northern Colorado. National Science Foundation Major Research Instrumentation Program, \$139,948, 2014-2017.

Hydock DS (PI). Effects of exercise on muscle weakness and fatigue during and following doxorubicin treatment. University of Northern Colorado Faculty Research and Publications Board New Project Program. \$4,989, spring 2014.

Hydock DS (PI). Doxorubicin treatment and skeletal muscle function: effects of exercise. American Cancer Society Mentored Research Scholar Grant (Mentor: Hayward R), \$421,000, 2012-2015.

Hydock DS (PI). Effects of exercise on doxorubicin-induced skeletal muscle dysfunction. University of Northern Colorado Provost Research, Dissemination, and Faculty Development Award. \$9,571, spring 2011.

Smith JD (PI), Heise GD (Co-PI), **Hydock DS** (Co-PI), Schneider CM (Co-PI). Acquisition of a motion and force analysis system for research and research training related to biomechanical deficits, National Science Foundation Major Research Instrumentation Program, \$242,905, 2011-2014.

Hydock DS (PI). Effects of reduced dietary fat intake on doxorubicin cardiotoxicity in obese rats. University of Northern Colorado Provost Research, Dissemination, and Faculty Development Award. \$9,985, fall 2009.

Hydock DS (PI). Effects of *in vivo* doxorubicin treatment on skeletal muscle function. University of Northern Colorado Faculty Research and Publications Board New Project Program, \$2,374 fall 2009.

Hydock DS, Hayward R. Effects of Zoladex treatment on doxorubicin cardiotoxicity: can treadmill training alleviate cardiac dysfunction? AstraZeneca Inc. \$61,600, summer 2008.

Hydock DS, Hayward R. Effects of voluntary exercise on Zoladex-induced cardiac dysfunction in male and female rats. AstraZeneca Inc. \$28,000, spring 2006.

Hydock DS, Hayward, R. Can exercise training attenuate the deleterious effects of androgen deprivation therapy? AstraZeneca Inc. \$18,200, summer 2004.

**Grants
Pending:**

Hydock DS. Creatine Supplementation in Managing Doxorubicin-Induced Muscle Fatigue. American Cancer Society, Pilot and Exploratory Projects in Palliative Care of Cancer Patients and Their Families. (Resubmittal)

**Grants Not
Funded:**

Busekrus, RB, **Hydock DS** (mentor). Exercise as an intervention to minimize cisplatin-induced kidney damage. American College of Sports Medicine Foundation Doctoral Student Research Grant, \$5,000, 2017

Hydock DS. Exercise and Creatine in Managing Chemotherapy-Induced Skeletal Muscle Dysfunction. National Institutes of Health, Exploratory/Developmental Research Grant Program (R21), \$323,151, 2016.

Hydock DS. Combatting chemotherapy-induced muscle weakness and fatigue with exercise. National Institutes of Health, Academic Research Enhancement Program (R15), \$408,618, 2014.

Hydock DS. Doxorubicin treatment and skeletal muscle function: effects of exercise. American Cancer Society Research Scholar Grant, \$691,703, 2010.

Hydock DS. The effects of exercise interventions and reduced dietary fat intake on doxorubicin-induced cardiotoxicity, Boettcher Foundation Webb-Waring Biomedical Research Award, \$203,495, 2010.

Hydock DS. Effects of chemical gonadectomy and physical activity on cardiac function, American Cancer Society Postdoctoral Grant, \$138,000, 2006.

Service:

2017-Present
Past-President and Acting Treasurer
Rocky Mountain American College of Sports Medicine

2016
Reviewer
Expert Review of Molecular Diagnostics

2016-2017
President
Rocky Mountain American College of Sports Medicine

2016
Reviewer
Nutrition and Cancer: An International Journal

2015
Reviewer
Student Development Grant
Rocky Mountain American College of Sports Medicine

2015
Faculty Mentor
College of Natural and Health Sciences
University of Northern Colorado

2015-2017
Chair, Evaluation Committee
School of Sport and Exercise Science
University of Northern Colorado

2015
Reviewer
Mitochondrion

2015
Reviewer
Nutrition and Cancer: An International Journal

2015- 2016
President Elect
Rocky Mountain American College of Sports Medicine

2015
Reviewer
Journal of Applied Physiology

2015
Reviewer
Xenobiotica

2014- Present
Evaluation Committee Member
School of Sport and Exercise Science
University of Northern Colorado

2014-2015
Search Committee Member
Lecturer Position in Exercise Science
University of Northern Colorado

2014
Reviewer
Mitochondrion

2014
Reviewer
Nutrition and Cancer: An International Journal

2014
Reviewer
Journal of Musculoskeletal and Neuronal Interactions

2013-Present
Chair, Institutional Animal Care and Use Committee (IACUC)
University of Northern Colorado
Greeley, CO

2013-2014
Search Committee Member
Tenure-Track Assist./Assoc. Professor Position in Exercise Science
University of Northern Colorado
Greeley, CO

2013-2014
Search Committee Member
Lecturer Position in Exercise Science
University of Northern Colorado
Greeley, CO

2013
Reviewer
Journal of Physiology and Pharmacology

2013
Reviewer
Cancer Chemotherapy and Pharmacology

2013
Reviewer
Journal of the American Association for Laboratory Animal Science

2013
Student Research Judge
Rocky Mountain American College of Sports Medicine Annual Meeting
Denver, CO

2012, 2013
Deputy Marshall
Spring Undergraduate Commencement Ceremony
University of Northern Colorado
Greeley, CO

2012-2013

Vice-Chair, Institutional Animal Care and Use Committee (IACUC)
University of Northern Colorado
Greeley, CO

2012-Present

Pre-Health Advising Committee
University of Northern Colorado
Greeley, CO

2012

Reviewer
Journal of the American Association for Laboratory Animal Science

2012

Student Research Judge
Rocky Mountain American College of Sports Medicine Annual Meeting
Colorado Springs, CO

2011-2012

Interim Chair, Institutional Animal Care and Use Committee (IACUC)
University of Northern Colorado
Greeley, CO

2012, 2014

Deputy Marshall
Fall Graduate Commencement Ceremony

2012

Reviewer
Toxicology and Applied Pharmacology

2011-2015

Board Member (Front Range Area)
Rocky Mountain American College of Sports Medicine

2011

Student Research Judge
Rocky Mountain American College of Sports Medicine Annual Meeting
Fort Collins, CO

2008-2011

Vice-Chair, Institutional Animal Care and Use Committee (IACUC)
University of Northern Colorado
Greeley, CO

2008-2014

Curriculum Committee
School of Sport and Exercise Science
University of Northern Colorado
Greeley, CO

2011
Chapter Reviewer
Foundations of Strength Training and Conditioning textbook
American College of Sports Medicine

2011
Chapter Reviewer
Exercise Physiology Textbook
American Council on Exercise

2010
Reviewer
Oncology Reviews

2010
Student Research Judge
Rocky Mountain American College of Sports Medicine Winter Meeting
Golden, CO

2010, 2012
Volunteer
Race Against Cancer
Greeley, CO

2009-2013
Volunteer, Youth Swim Meet Heating Area
Hillside Swim Team
Greeley, CO

2008-2009
IACUC Policy Development Subcommittee
University of Northern Colorado
Greeley, CO

2004
Research Mentor
University of Northern Colorado Frontiers of Science
Greeley, CO

2002 – 2005
Volunteer
Northern Colorado Race for the Cure
Greeley, CO

2002
Volunteer
Colorado State Weightlifting Championships
Colorado Springs, CO

1999-2001
President
USA Weightlifting North Dakota Local Weightlifting Committee
Wahpeton, ND

1999
Commissioner
Prairie Rose State Games Weightlifting
Bismarck, ND

1997-2001
Club Coach
USA Weightlifting
Bismarck, ND and Wahpeton, ND

**Honors and
Awards:**

2014
New Faculty Recognition in Sponsored Programs
Office of Sponsored Programs
University of Northern Colorado

2013
Outstanding Research Recognition
American Cancer Society's Northeastern Colorado Leadership Council
Celebrating 100 Amazing Years of Research Reception

2010
Favorite Professor Award
Mortar Board National Senior Honor Society
University of Northern Colorado

2008
Outstanding Professor Award
Delta Zeta Sorority
University of Northern Colorado

2005
Graduate Dean's Citation for Outstanding Dissertation
University of Northern Colorado

2005
Outstanding Student Presentation 2nd Place
American College of Sports Medicine Rocky Mountain Chapter Regional Meeting

2004
Summer Graduate Research Assistantship
School of Sport and Exercise Science
University of Northern Colorado

2003

Summer Graduate Research Assistantship
School of Sport and Exercise Science
University of Northern Colorado

2003

Outstanding Student Presentation 5th Place
American College of Sports Medicine Rocky Mountain Chapter Regional Meeting