

# **SEAN C. NEWCOMER, Ph.D.**

Curriculum Vitae  
Academic Year 2021/2022

Department of Kinesiology  
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## **ACADEMIC APPOINTMENTS**

2017-current	<b>California State University San Marcos</b> Associate Professor, Kinesiology
2013 – 2017	<b>California State University San Marcos</b> Assistant Professor, Kinesiology
2013 – current	<b>Purdue University</b> Adjunct Professor, Health and Kinesiology
2008 –2012	<b>Purdue University</b> Assistant Professor, Health and Kinesiology
2004 –2007	<b>University of Missouri</b> Post Doctoral Fellow, Biomedical Sciences

## **EDUCATION**

2004	<b>Pennsylvania State University</b> Ph.D. in Kinesiology (Minor Gerontology) Dissertation Advisor: David Proctor, Ph.D. Dissertation Title: Limb differences in vascular function: effects of age and endurance training
1996	<b>Humboldt State University</b> M.S. in Kinesiology Thesis Advisor: Susan MacConnie Thesis Title: Aerobic capacity of Humboldt County male surfers
1994	<b>University of Oregon</b> B.S. in Exercise and Movement Sciences

**TEACHING**

**Instruction**

Semester	Year	Course Number: Title	Section	Units	Students	Evaluation Rating (Range of Low-High Across all Categories)	Evaluation Rating (Average Across all Categories)
<i>California State University San Marcos</i>							
Spring	2021	326: Introductory Exercise Physiology	1	3	40	4.4 – 5.0	4.83
Spring	2021	326: Introductory Exercise Physiology Lab	1	1	20	4.3 – 4.9	4.78
Spring	2021	326: Introductory Exercise Physiology Lab	2	1	20	4.6 – 5.0	4.84
Fall	2020	426: Exercise Physiology for Special Pop	1	3	36	5.0 - 5.0	5.00
Fall	2020	426: Exercise Physiology for Special Pop	2	3	33	4.9 - 5.0	4.96
Fall	2020	426: Exercise Physiology for Special Pop	901	3	29	4.2 – 4.9	4.57
Spring	2020	496C: Undergraduate Research	1	3	6	4.7 – 5.0	4.95
Spring	2020	426: Exercise Physiology for Special Pop	1	3	33	5.0 – 5.0	5.00
Spring	2020	326: Introductory Exercise Physiology	1	3	36	4.8 – 4.9	4.88
Spring	2020	326: Introductory Exercise Physiology Lab	1	1	18	4.9 – 5.0	4.92
Spring	2020	326: Introductory Exercise Physiology Lab	2	1	18	4.8 – 5.0	4.98
Fall	2019	499C: Independent Study	1	3	5	5.0 - 5.0	5.00
Fall	2019	508: Graduate Seminar	1	2	21	4.2 – 4.7	4.48
Fall	2019	326: Introductory Exercise Physiology	1	3	36	4.9 – 5.0	4.93
Fall	2019	326: Introductory Exercise Physiology Lab	1	1	18	4.8 – 5.0	4.93
Fall	2019	326: Introductory Exercise Physiology Lab	2	1	18	4.7 – 5.0	4.93
Summer	2019	495C: Internship in Kinesiology	1	3	16	4.9 – 5.0	4.99
Spring	2019	326: Introductory Exercise Physiology	1	3	57	4.9 – 5.0	4.95
Spring	2019	326: Introductory Exercise Physiology Lab	1	1	20	4.8 – 4.9	4.89
Spring	2019	326: Introductory Exercise Physiology Lab	2	1	20	4.9 – 5.0	4.98
Spring	2019	326: Introductory Exercise Physiology Lab	3	1	17	4.9 – 5.0	4.95
Fall	2018	326: Introductory Exercise Physiology	1	3	36	4.6 – 4.9	4.80
Fall	2018	326: Introductory Exercise Physiology Lab	1	1	18	4.8 – 4.9	4.86
Fall	2018	326: Introductory Exercise Physiology Lab	2	1	18	4.7 – 4.9	4.87
Fall	2018	426: Exercise Physiology for Special Pop	1	3	32	4.8 – 5.0	4.97
Fall	2018	499C: Independent Study	1	3	2	5.0 – 5.0	5.00
Summer	2018	495C: Internship in Kinesiology	1	3	14	5.0 – 5.0	5.00
Spring	2018	326: Introductory Exercise Physiology	1	3	38	4.8 – 5.0	4.88
Spring	2018	326: Introductory Exercise Physiology Lab	1	1	19	4.7 – 5.0	4.83
Spring	2018	326: Introductory Exercise Physiology Lab	2	1	19	4.9 – 5.0	4.99
Spring	2018	426: Exercise Physiology for Special Pop	1	3	13	5.0 – 5.0	5.00
Spring	2017	326: Introductory Exercise Physiology	1	3	33	4.9 – 5.0	4.99
Spring	2017	326: Introductory Exercise Physiology Lab	1	1	16	4.9 – 5.0	4.95
Spring	2017	326: Introductory Exercise Physiology Lab	2	1	17	4.7 – 5.0	4.75
Spring	2017	426: Exercise Physiology for Special Pop	1	3	28	5.0 – 5.0	5.00
Spring	2017	526: Advanced Exercise Physiology	1	3	10	4.8 – 5.0	4.96
Spring	2017	526: Advanced Exercise Physiology Lab	1	1	10	4.8 - 5.0	4.97
Fall	2016	326: Introductory Exercise Physiology	1	3	40	4.9 – 5.0	4.94
Fall	2016	326: Introductory Exercise Physiology Lab	1	1	20	4.9 – 5.0	4.96
Fall	2016	326: Introductory Exercise Physiology Lab	2	1	20	4.9 – 5.0	4.98
Fall	2016	426: Exercise Physiology for Special Pop	1	3	32	4.4 – 4.9	4.73
<b>AVERAGE</b>						<b>4.79 – 4.97</b>	<b>4.90</b>

**Graduate Mentoring**

Student	Degree/Date	Specialization	Instructional Role
	Project Title		

<b>Doctoral Students</b>			
A. Blaize	Ph.D./2014	Exercise Physiology	Chair
	<i>The impact of maternal exercise during pregnancy on cardiovascular health in rodent and swine offspring</i>		
F. He	Ph.D./2013	Exercise Physiology	Committee Member
	<i>Antioxidant supplementation, muscle damage, oxidative stress, and leukocyte apoptosis</i>		
M. Bahls	Ph.D./2013	Exercise Physiology	Chair
	<i>The effects of maternal exercise during pregnancy on offspring vascular function in swine</i>		
J. Bell	Ph.D./2012	Exercise Physiology	Chair
	<i>Peripheral arterial disease in spinal cord injured individuals</i>		
B. Roseguini	Ph.D./2011	Biomedical Sciences	External Committee Member (University Missouri)
	<i>Acute and chronic adaptations to intermittent pneumatic leg compression</i>		
B. Johnson	Ph.D./2011	Exercise Physiology	External Committee Member (Indiana University)
	<i>Role of antioxidants in prevention of acute endothelial dysfunction from hemodynamic interventions</i>		
E. Weinheimer	Ph.D./2011	Foods and Nutrition	Committee Member
	<i>Effects of whey protein supplementation and exercise training on body composition and indices of metabolic syndrome in middle-aged overweight and obese</i>		
M. Markofski	Ph.D./2010	Exercise Physiology	Committee Member
	<i>Potential anti-inflammatory effects of exercise training with and without energy restriction-induced fat loss</i>		
J. Padilla	Ph.D./2008	Exercise Physiology	External Committee Member (Indiana University)
	<i>The relationship between shear stress and flow mediated dilation in low and moderate risk populations</i>		
<b>Masters Students (thesis track)</b>			
A. Malvini	M.S. 2022	Kinesiology	Committee Member
A. Denny	M.S. 2022	Kinesiology	Committee Member
M. Warner	M.S. 2022	Kinesiology	Chair

M. Paterson	M.S. 2022	Kinesiology	Chair
M. Simmons	M.S. 2021	Kinesiology	Chair
	<i>Impact of thermoplastic elastomer versus neoprene wetsuit materials on skin temperature during simulated surfing</i>		
D. Gomez	M.S. 2021	Kinesiology	Chair
	<i>Impact of wetsuit thickness on anaerobic power output during simulated surfboard paddling</i>		
C. Re	M.S. 2021	Kinesiology	Committee Member
	<i>The prevalence of scapular dyskinesia between surfers and non-surfers</i>		
T. Wiles	M.S. 2021	Kinesiology	Committee Member
	<i>Biomechanical and physiological differences between a neoprene and thermoplastic elastomer wetsuit in simulated surfboard paddling</i>		
H. Harris	Prof. M.S. 2020	Biotechnology	Committee Member
	<i>The effects of the FloDyn device on recovery following induced muscle soreness</i>		
B. Roberts	M.S. 2020	Kinesiology	Committee Member
	<i>Heart rate response during recreational snowboarding: a field study</i>		
E. Young	M.S. 2020	Kinesiology	Committee Member
	<i>Does Prenatal Yoga Meet Exercise Guidelines?</i>		
N. Skillern	M.S. 2020	Kinesiology	Chair
	<i>Thermoregulatory Sex Differences Among Male and Female Surfers During a Simulated Surf Session in a 2-mm Wetsuit</i>		
J. Atencio	M.S. 2020	Kinesiology	Chair
	<i>Fluid Loss in Recreational Surfers</i> <b>2019/2020 Graduate Deans Award</b>		
J. Hein	M.S. 2019	Kinesiology	Committee Member
	<i>The effects of military-style load carriage on upper limb motor performance, biomechanics, and hemodynamics.</i>		
K. Reed	M.S./2019	Kinesiology	Committee Member
	<i>Are there differences between strength-trained women following plant-based versus omnivorous diets? A pilot study examining anaerobic fitness, strength, body composition, and physical activity.</i>		
B. Smetanka	M.S./2019	Kinesiology	Chair
	<i>Heart rate response, grip strength, and anthropometric characteristics in recreational indoor rock climbers.</i>		
J. Moon	M.S./2018	Kinesiology	Committee Member
	<i>The Effects of Garment Compression on Lower Extremity Motion, Muscle Activity, and Landing Forces During Simulated Surfing Movements.</i>		
H. Furr	M.S./2018	Kinesiology	Chair
	<i>Differences in <math>VO_{2peak}</math> of surfers when paddling in water versus on a swimbench ergometer</i>		
T. Copeland	M.S./2018	Kinesiology	Chair
	<i>The effect of wetsuit thickness on paddling efficiency in proficient surfers</i>		
T. Frazee	Prof. M.S./2016	Biotechnology	Committee Member

	<i>Optimizing metabolic efficiency through manipulation of surfboard design</i>		
S. Sandhu	Prof. M.S./2015	Biotechnology	Committee Member
	<i>Epigenetics and exercise in relation to atherosclerosis</i>		
A. Phillips	M.S./2013	Nutritional Sciences	Committee Member
	<i>Impact of high calcium intake from calcium carbonate or dairy on coronary artery calcification and disease burden in Ossabaw Miniature Swine</i>		
E. Breslin	M.S./2013	Exercise Physiology	Chair
	<i>No impact of maternal exercise during pregnancy on rat offspring physical activity and food consumption</i>		
P. Taheripour	M.S./2012	Exercise Physiology	Chair
	<i>Impact of excess weight gestational and post-weaning energy intake on vascular function of swine offspring</i>		
R. Sheldon	M.S./2012	Exercise Physiology	Chair
	<i>Acute impact of intermittent pneumatic leg compression frequency on limb hemodynamics and vascular function in humans</i>		
K. Foust	M.S./2011	Animal Sciences	Committee Member
	<i>The influence of maternal exercise on gene expression in the liver of porcine offspring</i>		
M. Bahls	M.S./2010	Exercise Physiology	Chair
	<i>Influence of gene expression on the development and progression of atherosclerosis</i>		
D. Sitar	M.S./2010	Biotechnology	Committee Member
	<i>The effects of endothelial upright posture on lower extremity endothelial cell function</i>		
D. Beiser	M.S./2009	Exercise Physiology	Chair
	<i>Carbohydrate supplementation during prolonged intermittent exercise in endurance trained women</i>		

### **Undergraduate Interns and Research Assistants**

<b>Year</b>	<b>Number</b>	<b>Students Names</b>
2021	7	Cody Boivin, Kate Carlson, Joshua Forman, Emilee Garrett, Margaret Holohan, Jennifer Lafayette, Jasmine Leon
2020	6	Maya Saulino, Ana Noyola, Aileen Rangel, Allyson McQueen, Abdul Siddiq, Vicki Vo
2019	22	Morgan Simmons, Tyler Wiles, Megan Yee, David Sichmeller, Bergen Benedict, Deisi Arroyo, Emily Pilato, Kara Luong, Carly Smith, Madison Bednar, Blake Burns, Rachel Dargis, Pang Her, Lam Thuy Huynh, Meghan

		McHugh, Lauren Morabito, Tyler Place, Stephanie Saavedra, Brittany Schneider, Kara Stauder, Sara Whelehon, Alexandra Gonzales
2018	28	Makenzie Kessler, Daniel Kellogg, Maya Saulino, Jessica Atencio, Antonio Martinez, Natalie Skillern, Tyler Wiles, Jasper Angeles, Jacquelyn Batchelder, Itzel Gonzales, Chris Higuera, Grant Bernhardt, Morgan Simmons, Edilberto Arango, Nicole Brunner, Gabriella D'Este, Christina Eversole, Leila Ghasemi, Alyssa Gross, Copper Harris, Richard Krottmayer, Katelyn Largent, Analisa Manzo, Megan Paterson, Stacy Sheeran, Carly Smith, Kendall Smith, Kevin Trindl
2017	7	Alvin Padilla, Jilian Binuya, Makaela Logan, Lindsay Richards, Jose Aguirre, Makenzie Kessler, Daniel Kellogg
2016	16	Ning Jia, Joseph Moon, Luis Corona, Jean Aguilar, Marissa Belbis, Heather Furr, Vladymir Kuryshko, Cody Cuchna, Moses Wosk, Thomas Hastings, Gavin Palma, Mackenzie Kessler, Maya Saulino, Jazzilyn Dubois, Jeffrey Homan, Robert Smetanka
2015	20	Michelle Bravo, Jean Aguilar, Vuk Ekmeccic, Jenny Lou Cardinal, Thomas Cleveland, Christine LaLanne, Kevin Valdez, Aaron Galutera, Ning Jia, Nathaniel Navarro, Joseph Moon, Zach Tieger, Ryan Martineau, Joanne Cayabyab, Michael Cannady, Madison Silvas, Brian Cisneros, Danica Taylor, Netsanet Tekleab, Maya Saulino,
2014	23	Ross Edmunds, Austin Reaves, Alyzza Demesa, Vinnie Bello, Erik Tolentino, Ashlee Clattenburg, Chelsea Marie Peters, Yusef Tahiru, Cassaundra Bostwick, Jerry Pham, Kelsey DeValk, Michelle Bravo, Madison Silvas, Makenzie Stade, Andrea Alonte, Sid Robinson, Brenda Guzman, Amy Clark, Vuk Ekmeccic, Stephanie Smith, Jenna Porter, Sara Gharabaghli, Samantha Namm
2013	8	Ross Edmonds, Joseph Nichols, Stephanie Griswold, Jenna Porter, Rebecca Krogstad, Rachael Gallant, Idalia Flores, Holly McKinnon
2012	11	Courtney Yaggi, Casey Hayes, Meganne Rueter, Jessica Rosa, Jennifer Wagner, Charlotte Hounsome, Jessica Rosa, Erica Zartman, Leigha Thompson, Spencer Harstead, Celina Cheng
2011	9	Pardis Taheripour, Kerry Clifford, Katie Hudson, David Maurer, Alison Dosmann, Christian Sua, Annie Hudson, Christian Ordaz, Mollie Semmer
2010	10	Ryan Sheldon, Brogan Bahler, Pardis Taheripour, Katie Hudson, Kerry Clifford, Amanda Gipson, Christian Ordaz, Sam Yap, Amanda Nading, David Mauer
2009	9	Cameron West, Ryan Sheldon, David Maurer, Ian Skarbek, Megan Dubenetzky, Christopher Kapp, Brittany Bohling, Abby Stroup, Katie Hudson
2008	2	Lindsey Eldridge, Ryan Sheldon

## **RESEARCH, SCHOLARSHIP, AND CREATIVE ACTIVITY**

**H-Index = 28**

### **Published Refereed Publications**

*Name in Italics notes undergraduate or graduate student*

Atencio, J.K., Armenta, R.A., Nessler, J.A., Schubert, M.M., Furness, J.W., Climstein, M., Mach, L., and **Newcomer, S.C.** (2021) Fluid loss in recreational surfers. *International Journal Exercise Science*. 14(6): 423-434.

Crocker, G.H., Moon, J.F., Nessler, J.A., and **Newcomer, S.C.** (2021) Energetics of swimming with hand paddles of different surface areas. *Journal of Strength and Conditioning Research* 35(1): 205-211.

Wiles, T., Kellogg, D., Furr, H., Nessler, J.A., and **Newcomer, S.C.** (2020) Characterization of adult heart rate responses during recreational skateboarding at community skateparks. *International Journal of Exercise Science*. 13(2):501-510.

Kellogg, D., Wiles, T., Nessler, J.A., and **Newcomer, S.C.** (2020) Impact of velcro cuff closure on forearm skin temperature in surfers wearing a 2mm and 3mm wetsuit. *International Journal of Exercise Science*. 13(6):1574-1582.

Smith, C., Saulino, M., Luong, K., Simmons, M., Nessler, J.A., and **Newcomer, S.C.** (2020) Effect of wetsuit outer surface material on thermoregulation during surfing. *Sports Engineering*. 23(17): 1-8. *Awarded Sports Engineering 2020 Paper of the Year.*

Saulino, M., Skillern, N., Warner, M.E., Martinez, A., Moore, B., Nessler, J.A., and **Newcomer, S.C.** (2019) Characterization of heart rate response during frontside and backside wave riding in an artificial wave pool. *American Journal of Sports Science*. 7(4): 136-140.

Nessler, J.A., Ponce-Gonzales, J.G., Robles-Rodriguez, C., Furr, H., Warner, M., and **Newcomer, S.C.** (2019) An EMG analysis of the surf paddling stroke across multiple intensities. *Journal of Strength and Conditioning Research*. Apr; 33(4): 1102-1110.

Furr, H.N., Warner, M.E., Copeland, T.L., Robles-Rodriguez, C., Ponce-Gonzales, J.G., Nessler, J.A. and **Newcomer, S.C.** (2019) Differences in  $VO_{2peak}$  of surfers when paddling in water versus on a swimbench ergometer. *Journal of Strength and Conditioning Research*. Apr; 33(4): 1095-1101.

Warner, M.E., Nessler, J.A. and **Newcomer, S.C.** (2019) Skin temperatures in females wearing a 2-mm while participating in recreational surfing. *Sports* 7(145): 1-8.

Furr, H.N., Nessler, J.A., and **Newcomer, S.C.** (2018) Characterization of heart rate responses, duration, distances traveled, in youth participating in recreational skateboarding at community skateparks. *Journal of Strength and Conditioning Research*.

Schubert, M.M, Clark, A.S., De La Rosa, A.B., and **Newcomer, S.C.** (2018) Heart rate and thermal responses to power yoga. *Complimentary Therapies in Clinical Practice*. Aug; 32: 195-199.

Furness, J., Hing, W., **Newcomer, S.C.**, Sheppard, J.M., and Climstein, M. (2018) Physiological profile of competitive and recreational surfers. *Journal of Strength and Conditioning Research*. 32(2): 372-378.

Corona, L.J., Simmons, G.H., Nessler, J.A., and **Newcomer, S.C.** (2018) Characterization of regional skin temperatures in recreational surfers wearing a wetsuit. *Ergonomics*. 61(5): 729-735.

Nessler, J.A., Frazee, T., and **Newcomer, S.C.** (2018) Fore-aft distribution of volume in a short surfboard does not affect board motion, drag force, and metabolic efficiency while paddling. *Sports Engineering*. 21:11-19.

Ekmeçic, V., Jia, N., Cleveland, T.G., Saulino, M.L., Nessler, J.A., Crocker, G.H., **Newcomer, S.C.** (2017) Increasing surfboard volume reduces energy expenditure and alters biomechanics during paddling. *Ergonomics*. September; 6(9):1255-1260.

Nessler, J.A., Hastings, T., Greer, K., and **Newcomer, S.C.** (2017) Wearing an inflatable vest alters muscle activity and trunk angle while paddling a surfboard. *Journal of Applied Biomechanics*. August; 33(4):282-287.

LaLanne, C.L., Cannady, M.S., Moon, J.F., Taylor, D.L., Nessler, J.A., Crocker, G.H., and **Newcomer, S.C.** (2017) Characterization of activity and cardiovascular responses during surfing in recreational male surfers between the ages of 18-75 years old. *Journal of Aging and Physical Activity*. April; 25(2):182-188

Bravo, M.M., Cummins, K., Nessler, J.A., and **Newcomer, S.C.** (2016) Heart rate response of high school students participating in surfing physical education. *Journal of Strength and Conditioning Research*. June; 30(6):1721-1726.

Sheldon, R.D., Blaize, A. N., Fletcher, J.A., Donkin, S., **Newcomer, S.C.**, and Rector, R.S. (2016) Gestational exercise protects adult male offspring from high-fat diet induced hepatic steatosis. *Journal of Hepatology* 64(1):171-178.

Nessler, J.A., Silvas, M., Carpenter, S., and **Newcomer S.C.** (2015) Wearing a wetsuit alters upper extremity motion during simulated surfboard paddling. *PlosOne*10(11):e0142325.

Thijssen, D.H.J., Schreuder, T.H.A., **Newcomer, S.C.**, Laughlin, M.H., Hopman, M.T.E., and Green, D.J. (2015) Impact of 2-weeks continuous increase in retrograde shear stress on conduit artery vasomotor function and structure in young and old men. *Journal of American Heart Association* 4(10):e001968.

Blaize, N. Pearson, K.J., and **Newcomer, S.C.** (2015) Impact of maternal exercise during pregnancy on offspring chronic disease susceptibility. *Exercise and Sport Sciences Reviews* 43(4): 198-203.



*Blaize, N., Breslin, E., Donkin, S.S., Cabot, R., Pearson, K.J., and Newcomer, S.C. (2015) Maternal exercise does not significantly alter adult rat offspring vascular function. *Medicine and Science in Sports and Exercise* 47(11):2340-2346.*

*Phillips-Eakley, A.K., McKenney, M., Bahls, M., Newcomer, S.C., Radcliffe, J.S., Wastney, M., VanAlstine, W., Alloosh, M., Martin, B., Sturek, M., and Weaver, C. (2015). Effects of high calcium diet on coronary artery disease in Ossabaw miniature swine with Metabolic Syndrome. *Journal of American Heart Association* 4(8):e001620.*

*Blaize, N., Zartman, E., Biel, T., Goergen, C., Van Alstine, W., Cabot, R., and Newcomer, S.C. (2015). Impact of maternal exercise during pregnancy on coronary and femoral artery vascular function and atherosclerotic lesion formation in high fat fed swine offspring. *Enliven: Gynecology and Obstetrics* 1(1): 005.*

*Taheripour, P., DeFord, M.A., Lantz, E. J., Donkin, S.S., Ajuwon, K., and Newcomer, S.C. (2014) Impact of excessive gestational and post-weaning energy intake on vascular function of swine offspring. *BMC Pregnancy and Childbirth* 14(405):1-9.*

*Camarillo, I., Clah, L., Zheng, W., Zhou, X., Larrick, B., Blaize, N., Breslin, E., Patel, N., Johnson, D., Teegarden, D., Donkin, S., Gavin, T., and Newcomer, S. (2014) Maternal exercise during pregnancy reduces risk of mammary tumorigenesis in rat offspring. *European Journal of Cancer Prevention* 23(6):502-505.*

*Bahls, M., Sheldon, R.D., Taheripour, P., Clifford, K.A., Foust, K.B., Breslin, E.D., Marchant-Forde, J.N., Cabot, R.A., Bidwell, C.A., and Newcomer, S.C. (2014) Maternal exercise during pregnancy in swine alters vascular smooth muscle relaxation in offspring. *Experimental Physiology* 99(1): 205-219.*

*Sheldon, R.D., Roseguini, B.T., Laughlin, M.H., and Newcomer, S.C. (2013) New insights in the physiological basis for intermittent pneumatic limb compression as a therapy strategy for peripheral artery disease. *Journal of Vascular Surgery* 58(6): 1688-1696.*

*Bahls, M., Bidwell, C.A., Hu, J. Tellez, A., Kaluza, G.L., Granada, J.F., Kueger, C.G., Reed, J.S., Laughlin, M.H., VanAlstine, W.G., and Newcomer, S.C. (2013) Gene expression differences during the heterogeneous progression of peripheral atherosclerosis in familial hypercholesterolemic swine. *BMC Genomics* 14(443).*

*Claxton, L.J., Haddad, J.M., Ponto, K., Ryu, J.H., & Newcomer, S. (2013) Newly standing infants increase postural stability when performing a supra-postural task. *PlosOne* 8(8).*

*Johnson, B.D., Mather, K.J., Newcomer, S.C. Mickleborough, T.D., and Wallace, J.P. (2013) Vitamin C prevents the acute decline of flow-mediated dilation following altered shear rate patterns. *Applied Physiology, Nutrition, and Metabolism* 38(3): 268-274.*

*Bell, J., Chen, D., Bahls, M., and Newcomer, S.C. (2013) Altered hemodynamics in lower extremity arteries of spinal cord injured individuals are not strongly associated with peripheral arterial disease. *Journal of Spinal Cord Medicine* 36(2):104-111.*

- Johnson, B.D., Mather, K.J., Newcomer, S.C., Mickleborough, T.D., and Wallace, J.P. (2012) Alterations of brachial artery shear rate profiles during lower body exercise influences post-exercise flow-mediated dilation: contribution of oxidative stress. Cardiovascular Ultrasound 10(34):1-11.*
- Sheldon, R.D., Roseguini, B.T., Thyfault, J.P., Crist, B.D., Laughlin, M.H., and Newcomer, S.C. (2012) Acute impact of intermittent pneumatic leg compression frequency on limb hemodynamics, vascular function, and skeletal muscle gene expression in humans. Journal of Applied Physiology. 112:2099-2109.*
- Roseguini, B.T., Arce-Esquivel, A.A., Newcomer, S.C., Yang, H.T., Terjung, R., and Laughlin, M.H. (2012) Intermittent pneumatic leg compressions enhance muscle performance and blood flow in a model of peripheral arterial insufficiency. Journal of Applied Physiology. 112:1556-1563.*
- Newcomer, S.C., Taheripour, P., Bahls, M., Sheldon, R.S., Foust, K., and Cabot, R. (2012) Impact of porcine maternal aerobic exercise training during pregnancy on endothelial cell function of offspring at birth. Journal of Developmental Origins of Health and Disease. Feb; 3(1): 4-9.*
- Roseguini, B.T., Arce-Esquivel, A.A., Newcomer, S.C., & Laughlin, M.H. (2011) Impact of a single session of intermittent pneumatic leg compression on skeletal muscle and isolated artery gene expression in rats. American Journal of Physiology (Regulatory, Integrative, and Comparative Physiology). Dec; 301:R1658-R1668.*
- Bahls, M., Bidwell, C., Hu, J., Krueger, C., Reed, J., Tellez, A., Kaluza, G., Granada, J., Van Alstine, W., and Newcomer, S.C. (2011) Genetic heterogeneity in healthy brachial and femoral arteries of Rapacz swine influences atherosusceptibility. Physiological Genomics 43:781-88.*
- Bell, J., Bahls, M., Chen, D., and Newcomer, S.C. (2011) Lower ankle-brachial index and greater normalized intima media thickness in lower extremity arteries of spinal cord injured individuals. American Journal of Physiology (Heart and Circulatory Physiology) 301: H766-H772.*
- Newcomer, S.C., Thijssen, D.H.J., and Green, D.J. (2011) Effects of exercise on endothelium and endothelium/smooth muscle cross talk: Role of exercise-induced hemodynamics. Journal of Applied Physiology 111:311-20.*
- Newcomer, S.C. and Padilla, J. (2011) Racket sports as a model of studying vascular adaptation: A comeback after a quarter of a century. Journal of Applied Physiology 110(5):1156-7.*
- Bender S.B., Newcomer S.C., and Laughlin M.H. (2011) Differential vulnerability of skeletal muscle feed arteries to dysfunction in insulin resistance: impact of fiber type and daily activity. American Journal of Physiology (Heart and Circulatory Physiology). 300(4):H1434-41.*

Roseguini, B., Sheldon, R., Stroup, A., Bell, J., Maurer, D., Crist, B., Laughlin, M., and **Newcomer, S.C.** (2010) Impact of chronic intermittent compressions on forearm blood flow capacity in humans. *European Journal of Applied Physiology* . 111(3):509-519

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### **In Press Refereed Publications**

*Smetanka, R.G.*, Armenta, R.F., Nessler, J.A., and **Newcomer, S.C.** Heart rate response, grip strength, and anthropometric characteristics in recreational indoor rock climbers. *Journal of Strength and Conditioning Research*.

*Stone, H., Douglas, L., Furness, J., Kemp Smith, K., Climstein, M., and Newcomer S.C.* Physiological, Musculoskeletal & Anthropometric Characteristics & Performance Between Competitive & Recreational Surfers: A Scoping Review. *International Journal Exercise Science*.

Barrera, D., Upton, S., Rauch, M., Notarianni, T., Eum, K., Liberty, M., Liu, R., **Newcomer, S.**, May, L., Agbas, E., Sage, J., Kosal, E., and Agbas, A. Measuring Mitochondrial Electron Transfer Complexes in Previously Frozen Cardiac Tissue from the Offspring of Sow: A Model to Assess Exercise-Induced Mitochondrial Bioenergetics Changes. *Journal of Visualized Experiments*.

*Donaldson, T., Scantlebury, M., Furness, J., Kemp-Smith, K., Newcomer S.C., and Climstein, M.* Training methods in the sport of surfing: a scoping review. *Strength and Conditioning Journal*.

*Skillern, N.P., Nessler, J., Schubert, M., and Newcomer, S.C.* Differences in regional skin temperatures among male and female surfers during a simulated surf session in a 2-mm wetsuit. *Sports Engineering*.

### **Submitted Refereed Publications**

*Romanin, A., English, S., Furness, J., Kemp-Smith, K., Newcomer, S.C., and Nessler, J.* Surfing Equipment and Design: A Scoping Review. *Sports Engineering*.

### **In Preparation Publications**

### **Book Chapters**

McAllister, R.M., **Newcomer, S.C.**, and Laughlin, M.H. (2007). Vascular Nitric Oxide: Effects of Physical Activity, Benefits for Health, In, Adaptation Biology and Medicine: Health Potentials. Volume 5, Pgs 51-58. Narossa Publishing House. New Delhi, India.

### **Conference Presentations**

*Wiles, T., Kellogg, D., Furr, H., Nessler, J.A., and Newcomer, S.C.* (2019, October) Characterization of adult heart rate responses during recreational skateboarding at community skateparks. Presented at Southwest American College of Sports Medicine Regional Conference, Newport Beach, CA. **Poster**

*Atencio, J., Furness, J., Climstein, M., Mach, L., Armenta, R., Nessler, J., Schubert, M., and Newcomer, S.* (2019, October) Fluid loss in recreational surfers. Presented at Southwest American College of Sports Medicine Regional Conference, Newport Beach, CA. **Poster**

*Skillern, N.P., Nessler, J., Schubert, M., and Newcomer, S.* (2019, October) Differences in regional skin temperatures among male and female surfers during a simulated surf session in a 2-mm wetsuit. Presented at Southwest American College of Sports Medicine Regional Conference, Newport Beach, CA. **Poster**

*Petrone, C., Quartini, E., Newcomer, S., Asakawa, D., and Nessler, J.* (2019, October) Prevalence of scapular dyskinesis in surfers vs. nonsurfers. Presented at Southwest American College of Sports Medicine Regional Conference, Newport Beach, CA. **Poster**

*Smith, C., Saulino, M., Simmons, M., Nessler, J.A., and Newcomer, S.C.* (2019, October) Impact of different types of neoprene on skin temperature during recreational surfing. Presented at Southwest American College of Sports Medicine Regional Conference, Newport Beach, CA. **Poster**

*Kellogg, D., Wiles, T., Nessler, J.A., and Newcomer, S.C.* (2019, October) Impact of a novel wetsuit velcro closure on forearm skin temperature during surfing. Presented at Southwest American College of Sports Medicine Regional Conference, Newport Beach, CA. **Poster**

*Roberts, B., Armenta, R.A., Newcomer, S.C., and Schubert, M.* (2019, October) Physiological demands of snowboarding: a field study. Presented at Southwest American College of Sports Medicine Regional Conference, Newport Beach, CA. **Poster**

Nessler, J., **Newcomer, S.**, Moore, B., *Skillern, N., Atencio, J. and Saulino, M.* (2019, April) Incorporation of surf research into undergraduate exercise physiology curriculum. Presented at SDSU Impact Zone and Luminal Spaces Conference. San Diego, CA. **Oral Presentation**

Nessler, J., **Newcomer, S.**, Moore, B. and Simmons, G. (2018, September) The action sports research program at CSUSM: a novel research paradigm focused on involvement of undergraduate students. Presented at Nike Global Research Symposium. Beaverton, OR. **Poster**

**Newcomer, S.**, Nessler, J., Moore, B. Simmons, G., Fraser, K., and Wright, I. (2018, September) Using a scientific approach to wetsuit design for surfing: a collaboration between California

State University San Marcos, Hurley Innovation and Nike Sport Research Lab. Presented at Nike Global Research Symposium. Beaverton, OR. **Oral Presentation**

*Furr, H.N., Warner, M.E., Kellogg, D.A., Asakawa, D.S., Copeland, T.L., Nessler, J.A., and Newcomer, S.C.* (2017, October) Differences in VO<sub>2</sub> peak of Surfers when Paddling in Water Versus on a Swimbench Ergometer. Presented at Southwest American College of Sports Medicine Regional Conference, Long Beach, CA. **Poster**

*Copeland, T.L., Furr, H.N., Sheerdon, S.L., Asakawa D.S., Nessler, J.A., and Newcomer, S.C.* (2017, October) The effect of wetsuit thickness in paddling efficiency in proficient surfers. Presented at Southwest American College of Sports Medicine Regional Conference, Long Beach, CA. **Poster**.

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*Nessler, J.A., Hastings, T., Greer, K., and Newcomer, S.C.* (2016, October) Wearing an inflatable vest alters muscle activity and trunk angle while paddling a surfboard. Presented at Southwest American College of Sports Medicine Regional Conference, Costa Mesa, CA. **Poster**

*Newcomer, S.C., Frazee, T., and Nessler, J.A.* (2016, October) Fore-aft distribution of volume in a short surfboard does not affect board motion, drag force, and metabolic efficiency while paddling. Presented at Southwest American College of Sports Medicine Regional Conference, Costa Mesa, CA. **Poster**

*Furr, H.N., Palma, G.M., Wosk, M.E., Nessler, J.A., and Newcomer, S.C.* (2016, October) Cardiovascular responses to recreational skateboarding in youth. Presented at Southwest American College of Sports Medicine Regional Conference, Costa Mesa, CA. **Poster**

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*Corona, L.J., Aguilar, J.C., Kuryshko, V., Simmons, G., Nessler, J.A., Newcomer, S.C.* (2016, October) Characterization of regional skin temperatures in recreational surfers wearing a wetsuit. Presented at Southwest American College of Sports Medicine Regional Conference, Costa Mesa, CA. **Poster**

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Nessler, J.A., Silvas, M.N., and **Newcomer, S.C.** (2015, August) Wearing a wetsuit alters arm motion during simulated surfboard paddling. Presented at American Society of Biomechanists, Columbus, OH [Abstract published in *Proc. American Society of Biomechanists*] **Poster**

Bravo, M.M., Cummins, K., Nessler, J.A., and **Newcomer, S.C.** (2015, June) Heart rate response of high school students participating in surfing physical education. Presented at American College of Sports Medicine Regional, Costa Mesa, CA and National Meeting, San Diego, CA. [Abstract published in *Medicine and Science in Sport and Exercise*, Supplement 47(5S):45-51 ] **Poster**

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Blaize, N., Zartman, E., Cabot, R., and **Newcomer, S.C.** Effects of maternal exercise during pregnancy on coronary artery vascular function in high fat fed swine offspring. (2014, April) Presented at Experimental Biology Annual Meeting, San Diego, CA. [Abstract published in *FASEB Journal* 28: 886.2, 2014] **Oral**



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Phillips, A., Martin, B., Wastney, M., Jackson, G., Radcliffe, S., Van Alstine, W., McKenney, M., Bahls, M., **Newcomer, S.**, Sturek, M., and Weaver, C. (2013, November) Calcium intake and source effects on soft tissue calcification in Ossabaw Miniature Swine. Presented at American Heart Association National Conference **Poster**

Phillips, A., McKenney, M., Bahls, M., **Newcomer, S.**, Radcliffe, S., Van Alstine, W., Jackson, G., Wastney, M., Martin, B., Sturek, M., and Weaver, C. (2013, October) Impact of high calcium intake from carbonate or dairy on cardiovascular function and the progression of coronary artery disease in Ossabaw miniature swine. Presented at American Society of Bone and Mineral Research **Poster**

Blaize, N., Donkin, S.S., Cabot, R., and **Newcomer, S.C.** (2013, June) Maternal exercise during pregnancy does not influence glucose clearance or vascular function in adult offspring. Presented at American College of Sports Medicine National Meeting, Indianapolis, IN. [Abstract published in *Medicine and Science in Sport and Exercise*, Supplement 45(5):27, 2013] **Poster**

Johnson, B.D., Mather, K.J., **Newcomer, S.C.**, Mickleborough, M.T., and Wallace, J.P., (2012, October). Post exercise flow-mediated dilation is influenced by retrograde and oscillatory shear. Presented at Integrative Biology of Exercise Meeting, Westminster, CO. [Abstract published in ]**Poster**

Johnson, B.D., Mather, K.J., **Newcomer, S.C.**, Mickleborough, M.T., and Wallace, J.P., (2012, June). Vitamin C prevents attenuation of flow-mediated dilation following exercise with augmented oscillatory and retrograde shear. Presented at American College of Sports Medicine National Meeting, San Francisco, CA. [Abstract published in *Medicine and Science in Sport and Exercise*, Supplement 44(5):586, 2012] **Poster**

Taheripour, P., Ajuwon, K.M., Donkin, S.S., Sheldon, R.D., Bahls, M., Arentson, E.J., Ragland, D., and **Newcomer, S.C.** (2012, April). Impact of maternal and postnatal nutrition on femoral artery vascular function of offspring. Presented at Experimental Biology Annual Meeting, San Diego, CA. [Abstract published in *FASEB Journal* 26: 829.2, 2012] **Poster**

Johnson, B.D., Mathers, K.J., **Newcomer, S.C.**, Mickleborough, M.T., and Wallace, J.P. (2012, April). Vitamin C prevents attenuation of flow-mediated dilation due to acutely altered SR patterns. Presented at Experimental Biology Annual Meeting, San Diego, CA. [Abstract published in *FASEB Journal* 26: 853.26, 2012] **Poster**

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Foust, K., Cabot, R., Bidwell, C., Bahls, M., Sheldon, R., Taheripour, P., and **Newcomer, S.C.** (2011, August) Maternal exercise leads to altered vascular endothelial function in female porcine offspring. Presented at the Society for the Study of Reproduction Annual Meeting. Portland, OR. [2011] **Poster**

Roseguini, B.T., Sheldon, R., Crist, B., Thyfault, J., Laughlin, M.H., and **Newcomer, S.C.** (2011, June) Acute effects of intermittent pneumatic compression on skeletal muscle gene expression in humans. Presented at American College of Sports Medicine National Meeting, Denver, CO. [Abstract published in *Medicine and Science in Sport and Exercise*, 43(5):466 , 2011] **Poster**

Claxton, L.J., Haddad, J.M., Ryu, J.H., Ponto, K., & **Newcomer, S.** (2011, June) Newly standing infants exhibit more complex center of pressure patterns when engaging in a supra postural task. Presented at North American Society for the Psychology of Sport and Physical Activity. Burlington, VT. [Abstract published in *Journal of Sport & Exercise Psychology*, 33, S28, 2011]. **Oral**

Roseguini, B.T., Arce-Esquivel, A.A., **Newcomer, S.C.**, and Laughlin, M.H. (2011, April) Impact of a single session of intermittent pneumatic leg compression on skeletal muscle and isolated collateral artery gene expression in rats. Presented at Experimental Biology Annual Meeting, Washington, DC. [Abstract published in *FASEB Journal* 25 :1092.23, 2011] **Poster**

Arentson, E., Buhman, K.K., Cabot, R., **Newcomer, S.**, Donkin, S.S. (2011, April) Maternal exercise during pregnancy in swine programs gene expression in intestine of offspring. Presented at Experimental Biology Annual Meeting, Washington, DC. [Abstract published in *FASEB Journal* 25 : 990.9 , 2011] **Poster**

Claxton, L.J., Haddad, J.M., Ponto, K., Ryu, J. H., & **Newcomer, S.** (2011, March). Look I can stand: the balance of newly standing infants may be better than it appears. Presented at the biennial meeting of the Society for Research in Child Development, Montreal, Canada. [2011] **Poster**

Padilla, J., Whyte, J.J., **Newcomer, S.C.**, and Laughlin, M.H. (2010, June) Evaluating the impact of retrograde shear stress on expression of pro-inflammatory genes in rat carotid artery. Presented at American College of Sports Medicine National Meeting, Baltimore, MD. [Abstract published in *Medicine and Science in Sport and Exercise*, 42(5):S302, 2010] **Poster**

Bell, J.W., Roseguini, B.T., Sheldon, R., Stroup, A., Skarbek, I., Maurer, D. Laughlin, M.H., and **Newcomer, S.C.** (2011, June) Four weeks of cyclic mechanical forearm compressions do not alter resting brachial artery hemodynamics. Presented at American College of Sports Medicine National Meeting, Baltimore, MD. [Abstract published in *Medicine and Science in Sport and*

*Exercise*, 42(5):S245, 2010] **Poster**

Padilla, J., Young, C.N., Simmons, G.H., Deo, S.H., **Newcomer, S.C.**, Sullivan, J.P., Laughlin, M.H., and Fadel, P.J. (2010, April) Impact of increased muscle sympathetic nerve activity on conduit artery shear patterns. Presented at Experimental Biology Annual Meeting, Anaheim, CA. [Abstract published in *FASEB Journal* 24: 1020.13, 2010] **Poster**

Roseguini, B.T., Sheldon, R., Stroup, A., Bell, J.W., Skarbek, I., Maurer, D. Laughlin, M.H., and **Newcomer, S.C.** (2010, April) Impact of chronic intermittent forearm compressions on blood flow capacity of humans. Presented at Experimental Biology Annual Meeting, Anaheim, CA. [Abstract published in *FASEB Journal* 24: 618.13, 2010] **Poster**

Bahls, M., Bidwell, C.A., Juan, H., Granada, J.F., Krueger, C.G., Reed, J.D., VanAlstine, W.G., and **Newcomer, S.C.** (2010, April) Gene expression differences in the brachial and femoral arteries of Rapacz swine at birth are related to atherosusceptibility. Presented at Experimental Biology Annual Meeting, Anaheim, CA. [Abstract published in *FASEB Journal* 24: 1039.1, 2010] **Poster**

Roseguini, B.T., Soyulu, S.M., Whytte, J., Yang, H.T., **Newcomer, S.C.**, Terjung, R.L., and Laughlin, M.H (2009, October). Acute effects of cyclic limb compression on mRNA expression of angiogenic factors in skeletal muscle. Presented at Central States ACSM Regional Chapter Annual Meeting. Columbia, MO.

Laughlin, M.H., **Newcomer, S.**, Bender, S., Arce, A. and McAllister, R. (2009, May). Differential effects of exercise training (EX) on endothelial phenotype in porcine conduit arteries and veins. Presented at American College of Sports Medicine National Meeting, Seattle, WA. [Abstract published in *Medicine and Science in Sport and Exercise* 41(5):S75, 2009] **Poster**

Padilla, J., Johnson, D.B., **Newcomer, S.C.**, Wilhite, D.P., Mickleborough, T.D., Fly, A.D., Mather, K.J., and Wallace J.P. (2009, May). Adjusting Flow-mediated Dilation for Shear Stress Allows Detection of Endothelial Dysfunction in a Moderate-risk population. Presented at American College of Sports Medicine National Meeting, Seattle, WA. [Abstract published in *Medicine and Science in Sport and Exercise* 41(5):S77, 2009] **Poster**

Arce-Esquivel A., **Newcomer, S.C.**, Turk J.R and Laughlin, M.H. (2009, May). Relationship between endothelial function and oxidative damage in hypercholesterolemic pigs. Presented at American College of Sports Medicine National Meeting, Seattle, WA. [Abstract published in *Medicine and Science in Sport and Exercise* 41(5):S74, 2009] **Poster**

Tinken, T.M., Thijssen, D.H.J., Hopkins, N.D., Dawson, E.A., **Newcomer, S.C.**, Black, M.A., Laughlin, M.H., Cable, N.T. and Green, D.J. (2009, May). Does the pattern of shear rate, or mean shear rate, dictate flow mediated dilation (FMD) in humans. Presented at American College of Sports Medicine National Meeting, Seattle, WA. [Abstract published in *Medicine and Science in Sport and Exercise* 41(5):S49, 2009] **Poster**

Laughlin, M.H., **Newcomer, S.**, Bender, S., Arce, A. and McAllister, R. (2009, April).

Endothelial phenotype is not the same among porcine conduit arteries and veins. Presented at Experimental Biology Annual Meeting, New Orleans, LA. [Abstract published in *FASEB Journal* 23: 965.6, 2009] **Poster**

**Newcomer, S.**, Roseguinin, B., Arce Esquivel, A., Bender, S., Turk, J. and Laughlin, H. (2008, April). Effects of endurance exercise training on endothelial function and atherosclerosis in the hereditary hypercholesterolemic swine model. Presented at Experimental Biology Annual Meeting, San Diego, CA. [Abstract published in *FASEB Journal* 22: 1119.6, 2008.] **Poster**

**Newcomer, S.**, Hsu, C., Caron, N., Ingram, D., Roseguinin, B., and Laughlin, M.H. (2008, April). No change in endothelium-dependent relaxation or morphology of peripheral arteries following 30 days of aortic coarctation. Presented at Experimental Biology Annual Meeting, San Diego, CA. [Abstract published in *FASEB Journal* 22: 1119.8, 2008.] **Poster**

McAllister, R.M., Johnson, R.L., **Newcomer, S.C.**, and Laughlin, M.H. (2007, April). Effects of chronic nitric oxide synthase (NOS) inhibition on renal blood flow. Presented at Experimental Biology Annual Meeting, Washington, DC. [Abstract published in *FASEB Journal* 21(5): A498, 2007.] **Poster**

**Newcomer, S.C.**, Bowles, D.K., and Laughlin, M.H. (2007, April). Shear rates in the brachial and femoral arteries of swine. Presented at Experimental Biology Annual Meeting, Washington, DC. [Abstract published in *FASEB Journal* 21(6): A1369, 2007.] **Poster**

**Newcomer, S.C.**, Taylor, J.C., and Laughlin, M.H. (2007, April). Alpha-adrenergic responsiveness of porcine forelimb and hindlimb vasculatures. Presented at Experimental Biology Annual Meeting, Washington, DC. [Abstract published in *FASEB Journal* 21(6): A1370, 2007.] **Poster**

**Newcomer, S.C.** and Laughlin, M.H. (May, 2007). Similar effects of exercise on endothelium-dependent relaxation in brachial and femoral arteries of hypercholesterolemic swine. Presented at American College of Sports Medicine National Meeting, New Orleans, LA. [Abstract published in *Medicine and Science in Sport and Exercise* 39(5):S272, 2007.] **Poster**

Bender, S.B., **Newcomer, S.C.**, Morris, R.T., and Laughlin, M.H. (2007, August). Inactivity selectively reduces acetylcholine vasodilation of type II diabetic skeletal muscle feed arteries. Presented at Eighth World Congress for Microcirculation, Milwaukee, WI. [Abstract published in *Microcirculation* 14(4-5): 532, 2007.] **Poster**

**Newcomer, S.C.**, Laughlin, M.H., and McAllister, R.M. (2006, April). Chronic administration of N<sup>G</sup>-nitro-L-arginine methyl ester (L-NAME) on endothelium-dependent relaxation of porcine brachial and femoral arteries. Presented at Experimental Biology Annual Meeting, San Francisco, CA. [Abstract published in *FASEB Journal* 20(5): A1400, 2006.] **Poster**

**Newcomer, S.C.** and Laughlin, M.H. (2006, April). Contribution of nitric oxide (NO) and prostacyclin (PGI<sub>2</sub>) to endothelium-dependent relaxation of porcine brachial and femoral

arteries. Presented at Experimental Biology Annual Meeting, San Francisco, CA. [Abstract presented in *FASEB Journal* 20(5): A1401, 2006.] **Poster**

**Newcomer, S.C.**, Taylor, J.C. and Laughlin, M.H. (2006, April). Vasorelaxation responses of porcine forelimb and hindlimb vasculatures. Presented at Experimental Biology Annual Meeting, San Francisco, CA. [Abstract presented in *FASEB Journal* 20(5): A1401, 2006.] **Poster**

McAllister, R.M., Eklund, Harah, D.W., Jankord, R.D., Johnson, R.L., Melloh, A.J., **Newcomer, S.C.**, Price, E.M., Tanner, M.A., Taylor, J.C., Thorne, P.K., Latchman, S.L., and Laughlin, M.H.(2006, April). Effects of chronic nitric oxide synthase (NOS) inhibition on responses to acute exercise. Presented at Experimental Biology Annual Meeting, San Francisco, CA. [Abstract published in *FASEB Journal* 20(5): A1403, 2006.] **Poster**

Leuenberger, U.A., Hogeman, C.S., Handly, B.D., and **Newcomer, S.C.** (2005, April). Do prostaglandins contribute to hypoxia-induced skeletal muscle vasodilation in humans? Presented at Experimental Biology Annual Meeting, San Diego, CA. [Abstract published in *FASEB Journal* 19(4): A715, 2005.] **Poster**

**Newcomer, S.C.**, Leuenberger, U.A., Hogeman, C.S., and Proctor, D.N. (2005, April). Limb differences in vascular function: effects of age and endurance training. Presented at Experimental Biology Annual Meeting, San Diego, CA. [Abstract published in *FASEB Journal* 19(4):A715-A716, 2005.] **Poster**

**Newcomer, S.C.**, Hogeman, C.S., Handly, B.D., Leuenberger, U.A., and Proctor, D.N. (2004, April). Vasodilator responses to endothelial and vascular smooth muscle agonists in humans are limb-specific. Presented at Experimental Biology Annual Meeting, Washington, DC. [Abstract published in *FASEB Journal* 18(5):A1213, 2004.] **Poster**

Koch , D.W., **Newcomer, S.C.**, Le, K.U., Smithmyer, S.L., Leuenberger, U.A., and Proctor, D.N. (2004, April). Evidence of peripheral and central limitations to systemic VO<sub>2</sub> during peak exercise in older women. Presented at Experimental Biology Annual Meeting, Washington, DC. [Abstract published in *FASEB Journal* 18(4):A356, 2004.] **Poster**

Proctor, D.N., **Newcomer, S.C.**, Koch, D.W., Le, K.U., and Leuenberger, U.A. (2003, April). Leg vasodilation during submaximal exercise is attenuated in healthy older women. Presented at Experimental Biology Annual Meeting, San Diego, CA. [Abstract published in *FASEB Journal* 17(5):A1260, 2003.] **Poster**

Koch , D.W., **Newcomer, S.C.**, Le, K.U., MacLean, D.,Leuenberger, U., and Proctor, D.N. (2002, April). Does aging attenuate functional sympatholysis? Presented at Experimental Biology Annual Meeting, New Orleans, LA. [Abstract published in *FASEB Journal* 16(5):A764, 2002.] **Poster**

**Newcomer, S.**, Le, K., Koch, D., Leuenberger, U., and Proctor, D. (2001, May). Influence of age on leg VO<sub>2</sub> determinants during large muscle dynamic exercise. Presented at American College

of Sports Medicine National Meeting, Baltimore, MD. [Abstract published in *Medicine and Science in Sport and Exercise* 33(5):S209, 2001.] **Poster**

Le, K., **Newcomer, S.**, Koch, D., Leuenberger, U., and Proctor, D. (2001, May). Leg blood flow during large muscle dynamic exercise: influence of sedentary aging. Presented at American College of Sports Medicine National Meeting, Baltimore, MD. [Abstract published in *Medicine and Science in Sport and Exercise* 33(5):S209, 2001.] **Poster**

Quintela, E., **Newcomer, S.C.**, Leek, B., and Richardson, R.S. (2000, May). Citrate synthase activity in skeletal muscle: Response to acute exercise. Presented at American College of Sports Medicine National Meeting, Indianapolis, IN. [Abstract published in *Medicine and Science in Sport and Exercise* 32(5):S320, 2000.] **Poster**

Entin, P.L., **Newcomer, S.C.**, and Wagner, P.D. (2000, April). Exercise-induced up-regulation of skeletal muscle VEGF and mRNA is the same in old and young rats. Presented at Experimental Biology Annual Meeting, San Diego, CA. [Abstract published in *FASEB Journal* 14(4):A324, 2000.] **Poster**

Richardson, R.S., **Newcomer, S.C.**, and Noyszewski, E.A. (2000, April). Muscle intracellular PO<sub>2</sub>, Response to graded exercise test. Presented at Experimental Biology Annual Meeting, San Diego, CA. Abstract published in *FASEB Journal* 14(4):A324, 2000.] **Poster**

### **Invited scholarly presentations**

Nessler, J. and **Newcomer, S.C.** (2017, June). Scientific Applications in the Sport of Surfing. Claremont University HHMI Summer Lecture Series. Claremont, CA.

**Newcomer, S.C.** (2017, May). Batter Up: The Science of Sports. US News Stem Solutions Conference. San Diego, CA.

**Newcomer, S.C.** and Nessler, J. (2015, December). The Science of Surfing. Nike Sport Research Laboratory. Beaverton, OR.

**Newcomer, S.C.** and Nessler, J. (2014, July). Physiological and biomechanical characterization of recreational surfers. University of the Third Age, University of San Diego, San Diego, CA.

**Newcomer, S.C.** (2012, November). Impact of maternal nutrition and exercise during pregnancy on the vascular health of offspring. Kinesiology Seminar, Michigan State University, East Lansing, MI.

**Newcomer, S.C.** (2011, February). Investigations into Cardiovascular Disease. Chronic Disease Seminar, Purdue University, West Lafayette, IN.

**Newcomer, S.C.** (2010, December). Effects of maternal exercise on the atherosclerotic susceptibility of offspring. Ingestive Behavior Seminar, Purdue University, West Lafayette, IN.

**Newcomer, S.C.** (2010, November) Influence of gene expression on the development and progression of atherosclerosis. 2010 Showalter Trustee Visit. Purdue University, West Lafayette, IN.

**Newcomer, S.C.** (2010, June). Mechanisms underlying the heterogeneous distribution of atherosclerosis. Symposium on Cardiovascular Pathology, School of Veterinary Medicine. Purdue University, West Lafayette, IN.

**Newcomer, S.C.** (2009, September). Are all peripheral arteries created equal? An examination of mechanisms underlying limb differences in atherosclerosis. Animal Science Seminar Series. Purdue University. West Lafayette, IN.

**Newcomer, S.C.** (2009, September). Mechanisms underlying the heterogeneous distribution of atherosclerosis in the peripheral circulation. INP Seminar Series. Purdue University, West Lafayette, IN.

**Newcomer, S.C.** (2008, September). Mechanisms underlying the heterogeneous distribution of atherosclerosis in the peripheral circulation. Basic Medical Sciences Seminar Series. Purdue University, West Lafayette, IN.

**Newcomer, S.C.** (2008, February). Mechanisms underlying the heterogeneous distribution of atherosclerosis in the peripheral circulation. Health and Kinesiology Colloquium. Purdue University, West Lafayette, IN.

**Newcomer, S.C.** (2005, November). The clinical significance of limb differences in vascular function. Kinesiology Seminar Series. University of Illinois Chicago, IL.

**Newcomer S.C.** (2005, September). Are all peripheral vasculature created equal? An examination of peripheral vascular function in the upper and lower extremities of humans. Cardiology Grand Rounds. University of Missouri, School of Medicine. Columbia, MO.

**Newcomer, S.C.** (2005, February). Limb differences in vascular function: effects of age and endurance training. Cardiovascular Days. University of Missouri, Columbia, MO.

**Newcomer, S.C.** (2004, August). Limb differences in vascular function: effects of age and endurance training. Biomedical Sciences Seminar Series. University of Missouri. Columbia, MO.

### **Funded External Grants, Contracts and Donations**

**Title:** *Laboratory Expansion*

**Duration of funding:** 3 year (1/2018-12/2020)

**Amount of Award:** \$25,000 (Funded)

**Role:** Co-Principal Investigator

**Agency:** Hurley

**Title:** *Gift in Kind (Value of Donated Product)*  
**Duration of funding:** 2 year (12/2018-12/2019)  
**Amount of Award:** \$37,885 (Funded)  
**Role:** Co-Principal Investigator  
**Agency:** Hurley

**Agency:** Hurley  
**Title:** *Sensory Feedback and Paddling Mechanics*  
**Duration of funding:** 1 year (10/1/2016-5/31/2017)  
**Amount of Award:** \$4,945 (Funded)  
**Role:** Co-Principal Investigator

**Agency:** Hurley  
**Title:** *Muscle Stability*  
**Duration of funding:** 1 year (10/1/2016-5/31/2017)  
**Amount of Award:** \$4,945 (Funded)  
**Role:** Co-Principal Investigator

**Agency:** Hurley  
**Title:** *Paddle Assist*  
**Duration of funding:** 1 year (8/1/2015-5/31/2015)  
**Amount of Award:** \$5,851 (Funded)  
**Role:** Co-Principal Investigator

**Agency:** Hurley  
**Title:** *Thermoregulation*  
**Duration of funding:** 1 year (8/1/2015-5/31/2015)  
**Amount of Award:** \$4,701 (Funded)  
**Role:** Co-Principal Investigator

**Agency:** American Heart Association  
**Title:** *Effects of maternal exercise during pregnancy on cardiovascular disease susceptibility of offspring throughout life*  
**Duration of funding:** 4 year (1/1/2012–12/30/2015)  
**Amount of Award:** \$308,000 (Funded)  
**Role:** Principal Investigator

**Agency:** Dairy Research Institute  
**Title:** *Does high calcium exacerbate atherosclerosis?*  
**Duration of funding:** 1.5 year (5/1/2012–9/30/2013)  
**Amount of Award:** \$110,000 (Funded)  
**Role:** Co-Investigator

**Agency:** American College of Sports Medicine  
**Title:** *Impact of external mechanical compression on skeletal muscle gene expression and blood flow capacity*



**Duration of funding:** 1 year (7/1/2010 –6/30/2011)  
**Amount of Award:** \$9,971 (Funded)  
**Role:** Principal Investigator

**Agency:** Showalter Trust Award  
**Title:** *Influence of gene expression on the development and progression of atherosclerosis.*  
**Duration of funding:** 1 year (7/1/2009 – 6/30/2011)  
**Amount of Award:** \$75,000 (Funded)  
**Role:** Principal Investigator

**Agency:** National Institutes of Health (NHLBI)  
**Title:** *Influence of blood pressure on PAD distribution.* (NRSA; Laughlin – Sponsor)  
**Duration of funding:** 1 year (6/1/2006-6/1/2007)  
**Amount of Award:** \$63,408 (Funded)  
**Role:** Principal Investigator

### **Funded Internal Grants**

**Agency:** CoEHHS Cross-Disciplinary Grant  
**Title:** *Surfing Youth Prevention Program*  
**Duration of funding:** (9/1/2016-11/30/2016)  
**Amount of Award:** \$8,270 (Funded)  
**Role:** Co-Principal Investigator

**Agency:** Active Motif Sponsored Faculty Innovation Grant  
**Title:** *Impact of nontraditional wetsuit materials and designs on properties of thermoregulation and mechanical efficiency during surfing*  
**Duration of funding:** (8/1/2015-8/1/2016)  
**Amount of Award:** \$20,000 (Funded)  
**Role:** Co-Principal Investigator

**Agency:** University Professional Development Grant  
**Title:** *Impact of pregnancy and exercise on postpartum maximal oxygen consumption*  
**Duration of funding:** (7/1/2013-6/15/2014)  
**Amount of Award:** \$3,000 (Funded)  
**Role:** Principal Investigator

**Agency:** Faculty Center Professional Development Grant  
**Title:** *Effects of maternal exercise during pregnancy on cardiovascular outcomes of offspring*  
**Duration of funding:** (5/28/2013-6/1/2013)  
**Amount of Award:** \$1,000 (Funded)  
**Role:** Principal Investigator

**Agency:** Clinical and Translational Science Institute (Purdue Development Team)  
**Title:** *Exercise and Vitamin D Exposure during the Lifespan on Breast Cancer Risk*  
**Duration of funding:** 1 year (3/1/2012-2/28/2012)

**Amount of Award:** \$10,000 (Funded)

**Role:** Co-Investigator

**Agency:** Purdue Research Foundation Research Grant Program

**Title:** *The effects of maternal exercise during pregnancy on NO/sGC/PKG1 signaling in offspring.*

**Duration of funding:** 1 year (6/1/2012 - 5/31/2013)

**Amount of Award:** \$16,795 (Funded)

**Role:** Principal Investigator (on behalf of M. Bahls)

**Agency:** Purdue Research Foundation Research Grant Program

**Title:** *Prevalence of peripheral arterial disease in individuals with spinal cord injury*

**Duration of funding:** 1 year (6/1/2010 - 5/31/2011)

**Amount of Award:** \$16,795 (Funded)

**Role:** Principal Investigator (on behalf of J. Bell & M. Bahls)

**Agency:** Discovery Park Undergraduate Internship Program

**Title:** *Development of a pump that simulates in vivo hemodynamics*

**Duration of funding:** 3 months (9/2009 - 12/2009)

**Amount of Award:** \$500 (Funded)

**Role:** Principal Investigator

**Agency:** Clinical and Translational Science Institute (Purdue Development Team)

**Title:** *Prevalence of peripheral arterial disease in individuals with spinal cord injury*

**Duration of funding:** 1 year (10/1/2009 - 9/30/2010)

**Amount of Award:** \$6,000 (Funded)

**Role:** Principal Investigator

**Agency:** Purdue Research Foundation Research Grant Program

**Title:** *Prevalence of peripheral arterial disease in individuals with spinal cord injury*

**Duration of funding:** 1 year (6/1/2009 - 5/31/2010)

**Amount of Award:** \$16,795 (Funded)

**Role:** Principal Investigator (on behalf of J. Bell)

**Agency:** College of Veterinary Medicine Faculty Research Award

**Title:** *Influence of blood pressure on peripheral arterial disease distribution*

**Duration of funding:** 1 year (1/1/2006 – 12/31/2006)

**Amount of Award:** \$18,000 (Funded)

**Role:** Co-Investigator (not eligible to be PI due to post doctoral status)

## **SERVICE**

### **Department**

2021-Present Department Chair

2021 In Charge of Course Schedule Build (Summer and Fall 2021 – Stateside / EL Temecula and ABSK Programs)

2021	Kinesiology Lecturer PRC (Daly, Ordaz, Stuhr-Ortiz)
2020	Kinesiology Assistant Professor PRC (Armenta, Asakawa, Schubert, Tunur)
2019	Kinesiology Lecturer PRC (Tinley, Dill, Roberg-Chao)
2019	Kinesiology Assistant Professor PRC Fall (Kang)
2019	Kinesiology Assistant Professor PRC Winter (Kang)
2018	Kinesiology Assistant Professor PRC (Armenta, Asakawa, Schubert, Tunur)
2018	Kinesiology Lecturer PRC (Daly, Ordaz, Stuhr-Ortiz)
2015	Search Committee – Laboratory Technician Position
2010-2011	Movement and Sports Sciences Strategic Planning Curriculum Committee
2009-2010	(Chair) Corrigan Professional Development Grant Committee
2008-2010	Ph.D. Qualifying Examination Committee
2008-2009	Movement and Sports Sciences Curriculum Committee
2008-2009	(Panel Member) Graduate Student Organization Panel Discussion on Getting a Job in Academia
2007-2008	Student Purdue Research Foundation Grant Reviewer

### **College**

2013-2015	Curriculum and Academic Policy Committee
2013	Fall Academic Reinstatement Committee
2012	Interdisciplinary Graduate Program Project Award Reviewer
2012	Interdisciplinary Nutrition Program Graduate Application Reviewer
2011	HHS Working Group on Research and Graduate Education
2011	Organizing Committee-Interdisciplinary Nutrition Program Seminar
2011	Faculty Search Committee – Foods and Nutrition
2010- 2012	Organizing Committee – HHS Chronic Disease Research Interest Group
2009- 2012	Advisory Committee – Bone-Body Composition CTSI Core

### **University**

#### ***Committees***

2020-present	Institutional Review Board
2020-present	Research Reactivation Committee
2018-present	Faculty Grants Committee
2018-2020	Academic Senate
2017-present	Sponsored Projects Committee
2015-2017	Faculty Affairs Committee
2015	Campus Connect Planning Committee (Aug-Jan)
2015	Campus Connect Selection Committee Member (May/June)
2013-present	CSUSM Institutional Animal Care and Use Committee (Interim Chair Spr 2019)

#### ***Guest Speaker***

2019	Guest Speaker Campus Connect (March 8, 2019)
2018	Guest Speaker University Advancement (October 30, 2018)
2018	Guest Speaker at Getting Started in Research Forum (November 2, 2018)
2018	Guest Speaker Campus Connect (April 6, 2018)
2017	Guest Speaker Campus Connect (April 7, 2017)
2017	Guest Speaker at Getting Started in Research Forum (October 3, 2017)

- 2016 Action Sports Research Focus Group (September 21, 2016)
- 2016 Guest Speaker at University Foundation Board Meeting (June 9, 2016)
- 2016 Guest Speaker Campus Connect (January 15, 2016)
- 2014 Guest Speaker at President Haynes University Council (November 20, 2014)
- 2013 Guest Speaker Campus Connect (November 4, 2013)
- 2013 Guest Speaker Bridges Open House (October 11, 2013)

### ***CSUSM Experience***

- 2019-2021 Mentor in Faculty Mentor Program (Josh Hamann)
- 2018 SuperStem Saturday Scientist Chat (3/10/2018)
- 2017-2019 Mentor in the Faculty Mentor Program (Venessa Rivera)
- 2017 SuperStem Saturday Fireside Talk (3/11/2017)
- 2016 MOU Campus Tours (Fall Semester)
- 2016 Surf Research Laboratory Tour (**Timothy White, CSU Chancellor**, 4/25/2016)
- 2015-2017 Mentor in the Faculty Mentor Program (Jose Aguilar, Brenda Diaz)
- 2015 Surf Research Laboratory Tour (**Loren Blanchard, CSU Executive Vice Chancellor for Academic and Student Affairs**, 11/30/2015)
- 2015 Surf Research Laboratory Tour (**Rebecca Eisen, CSU Trustee**, 3/25/2015)
- 2015 Twenty-four Alliance Students Tours (Fall Semester)
- 2015 Freshman For a Day Instructor (Spring Semester)

### **Community**

- 2016 Surfing Youth Prevention Program Murray High School
- 2014-2016 Encinitas Union School District Health and Wellness Representative
- 2014-2016 Ocean Knoll Elementary School VP of Health and Welfare
- 2014-Present Scientific Advisory Committee Healthy Women Healthy Children
- 2013-2014 Director of CSUSM's Walking for Two Program
- 2013-2014 Director of Research and Program Development for Healthy Women Healthy Children

### **Professional**

- 2011-2012 Editorial Board for *Journal of Applied Physiology*
- 2019-present Reviewer *Sports Medicine*
- 2018-present Reviewer *Ergonomics*
- 2018-present Reviewer *Journal of Primary Health Care*
- 2015-present Reviewer *Journal of Strength and Conditioning Research*
- 2015-present Reviewer *Photodermatology, Photoimmunology & Photomedicine*
- 2004-present Reviewer *American Journal of Physiology – Heart and Circulatory Physiology*
- 2004-present Reviewer *Journal of Applied Physiology*
- 2004-present Reviewer *Medicine and Science in Sports and Exercise*
- 2004-present Reviewer *Experimental Physiology*
- 2004-present Reviewer *Exercise and Sports Science Reviews*
- 2004-present Reviewer *International Journal of Neuroscience*

**Fellowships, Awards, and Honors**

2016-2017 President's Award for Scholarship and Creative Activity  
2006-2007 Post Doctoral Fellowship, National Institutes of Health, National Heart Lung and Blood Institute  
2004-2006 Post Doctoral Fellowship, National Institutes of Health, National Institute of Arthritis and Musculoskeletal and Skin Diseases  
2005 American Physiological Society, Caroline tum Suden/Frances Hellebrandt Professional Opportunity Award  
2004 2<sup>ND</sup> Place at Pennsylvania State University Graduate Exhibition  
2004 American Physiological Society, Caroline tum Suden/Frances Hellebrandt Professional Opportunity Award  
2000 Pre Doctoral Fellowship, National Institutes of Health, National Institute of Aging  
1996 Phi Kappa Phi Honor Society