

KATARINA Tomljenović BORER

Curriculum vitae 2016

CAREER GOALS:

Research scholarship best describes my central career goal, occupation, and preoccupation during the past quarter of a century. My research explores the mechanisms of energy regulation, regulatory and nonhomeostatic, which partition nutrient energy among growth in response to exercise and its hormonal sequelae.

I consider teaching an integral part of research scholarship: a stimulus for integration of facts, and a deductive starting point for laboratory experiments. I particularly value guiding students in the strategies of doing research and teaching courses about regulated biological processes which require integration of diverse facts for full comprehension of function.

EXPERIENCE:

1988-present	Professor , Division of Kinesiology Department of Movement Science The University of Michigan, Ann Arbor
2002-2003	Interim Research Associate Dean Division of Kinesiology Department of Movement Science The University of Michigan, Ann Arbor
2002-present	Visiting Professor , Faculty of Kinesiology The University of Zagreb, Zagreb, Croatia
1994-1996	Associate Director for Research and Scholarly Activities Division of Kinesiology The University of Michigan, Ann Arbor
1990-1991 2000-2001	Chairperson Department/Division of Kinesiology The University of Michigan, Ann Arbor
1981-1988	Associate Professor
1977-1981	Assistant Professor Department of Physical Education The University of Michigan, Ann Arbor
1971-1977	Postdoctoral Scholar Neuroscience Laboratory Building Lecturer, Department of Psychology The University of Michigan, Ann Arbor.

EDUCATION:

- 1971-1977 **The University of Michigan,**
Neuroscience Laboratory Building.
Postdoctoral research (Neurobiology/
Psychobiology)
- 1969-1970 **The University of Miami,** Rosenstiel
School of Marine and Atmospheric Sciences.
Postdoctoral research (Marine Biology)
- 1962-1966 **The University of Pennsylvania,**
Philadelphia. **Ph.D.** (Zoology)
- 1961-1962 **The University of Pennsylvania,**
Philadelphia. **B.A.** (Biology)

RESEARCH FUNDING:

- 1973-1978 **Small grants** ranging from \$3,000 to \$9,000 per
year from:
Division of Research Development and Administration
The Weight Watchers Foundation, Inc.
National Institute of Mental Health. Small Grants
Program
The University of Michigan Rackham Faculty
Research Grant Program
- 1978-1994 **National Science Foundation grants:**
"Acceleration of growth by exercise".
1978-1981, \$119,200
"Acceleration of growth by exercise and nutrition".
1981-1984, \$155,000
"Acceleration of growth by exercise: Neuroendocrine
mechanisms". 1984-1989, \$218,000
"Expression of growth by nutrition and exercise"
1990-1993, \$264,828.
- 1989-1990 **U of M sources of funding**
"Neuroimmune effects of endurance exercise", \$15,000
1993-1994 "Expression of growth by nutrition and exercise", \$5900
"Gamma counter, Spectrophotometer and Deionizer",
\$15,000. Source: Office of the Vice President for
Research
- 1999-2000 Undergraduate Research Opportunity Program (UROP)
Faculty Recognition Award, Coca Cola funding \$10,000

1999-2001	“Exercise, growth hormone, and leptin”. Research partner to a clinical investigator, Dr. Josephine Kasa-Vubu, Assistant Professor, Dept. of Pediatrics Source: clinical research partnership funded by the U of M Medical School. \$98,256.
2002	UROP Faculty Recognition Award (Outstanding Research Mentor), Coca Cola funding \$1,500
2003	“Using exercise and diet for appetite suppression in postmenopausal women”. Elizabeth Caroline Crosby Research Fund, National Science ADVANCE Program, \$20,000.
	NIH funding:
	2005-2008 “Role of exercise in the endocrine control of feeding”. R15 DK066286 2 year budget (with one-year extension) \$225,125.
	2009-2013 “Liver glycogen in control of plasma glucose” R21DK082800 2 year budget \$219,664.

RECOGNITION AND HONORS:

1961-1970 The University of Pennsylvania:

B.A. magna cum laude, Honors Major
Fellow, Institute of Neurological Science
Orville Paul Phillips and Bloomfield-Moore fellowships
American Association of University Women fellowship
Pennsylvania predoctoral fellowship

The University of Miami:
National Heart Institute : postdoctoral fellowship.

1971-present:

Fulbright Hayes Research Scholarship to Sweden
(1990-1991)

Faculty Achievement Award, The University of Michigan (1990-1991).

Member, Council for International Exchange of Scholars, Area Committee for Scandinavia (1993-1995).

Meritorious Professor, Faculty of Kinesiology, University of Zagreb, Zagreb, Croatia (November 2009)

Ad Hoc Reviewer for:

American Journal of Physiology: Endocrinology and Metabolism
Appetite
Applied Physiology, Nutrition and Metabolism
Behavioral and Brain Sciences
Behavioral Neuroscience
British Journal of Sports Medicine
Diabetes
Dove Medical Press
European Journal of Sport Science
International Journal of Clinical Nutrition
Journal of Applied Physiology
Journal of Clinical Epidemiology
Journal of Comparative Psychology
Journal of Gerontology-Biological Sciences
Journal of Nutrition
Journal of Physiology
Journal of Sports Medicine
Journal of the Marine Biological Association of the United Kingdom
Kinesiology
Life Sciences
Maturitas
Medicina Sportiva
Medicine and Science in Sports and Exercise
Nutrition and Behavior
Osteoporosis International
Pharmacology, Biochemistry, and Behavior
Physiology and Behavior
Saudi Medical Journal
Sports Medicine
The Physician and Sportsmedicine

N.I.H. Career Development Award **Study Section**, Ad hoc reviewer (1987)

Editorial board member: Physiology and Behavior (1990-1997)

Kinesiology (international journal)(2003-pres)

Associate editor: International Journal of Kinesiology and Sport Sciences (2013)

Member, National Institute of Aging **Special Emphasis Panel** (Older Americans Independence Centers) (2002)

City University of New York Grant proposal evaluator, 2009

Member, Review panel, **Academy of Finland**, 2010

Reviewer, **Estonian Science Foundation**, 2010

SOCIETY MEMBERSHIP:

1978-present	American College of Sports Medicine
1981-present	American Physiological Society
1984-present	Endocrine Society
2014-present	The Obesity Society

RESEARCH PUBLICATIONS:

1. TOMLJENović K. Biološke zanimljivosti Nizozemske. **Priroda**, 1960, **47**: 1965-1969.
2. TOMLJENović K. Od Palagruže do Dugog Otoka. **Priroda**, 1961, **48**:137-140.
3. BORER KT. Disappearance of preferences and aversions for sapid solutions in rats ingesting untasted fluids. **J.comp.physiol.Psychol.**, 1968, **65**:213-221.
4. BORER KT. Control of food intake in Octopus briareus Robson. **J. comp. physiol. Psychol.**, 1971, **75**:171-185.
5. BORER KT, LANE CE. Oxygen requirements of Octopus briareus Robson at different temperatures and oxygen concentrations. **J.exp.mar.Biol. Ecol.**, 1971, **7**:263-269.
6. BORER KT. Absence of weight regulation in exercising hamsters. **Physiol.Behav.**, 1974: **12**:589-597.
7. BORER KT, POWERS JB, WINANS SS, VALENSTEIN ES. The influence of olfactory bulb removal on ingestive behaviors, activity levels, and self-stimulation in hamsters. **J.comp.physiol.Psychol.**1974, **86**:396-403.
8. BORER KT, KOOI AA. Regulatory defense of the exercise-induced weight elevation in hamsters. **Behav.Biol.**, 1975, **13**:301-310.
9. BORER KT, KAPLAN LR. Exercise-induced growth in golden hamsters: Effects of age, weight, and activity level. **Physiol.Behav.**, 1977, **18**:29-34.
10. BORER KT, KUHNS LR. Radiographic evidence for acceleration of skeletal growth in adult hamsters by exercise. **Growth**, 1977, **41**:1-13.
11. BORER KT, KELCH RP, WHITE MP, DOLSON L, KUHNS LR. The role of septal area in the neuroendocrine control of growth in golden hamsters. **Neuroendocrinology**, 1977, **23**: 133-150.
12. BORER KT, KELCH RP. A heterologous radioimmunoassay method for measurement of hamster growth hormone. **Neuroendocrinology**, 1978, **25**:65-76.
13. BROWNE SAH, BORER KT. The basis for exercise-induced hyperphagia in adult hamsters. **Physiol.Behav.**, **1978**, **20**: **553-557**.
14. BORER KT, KELCH RP. Increased serum growth hormone and somatic growth in exercising adult hamsters. **Amer.J. Physiol.**, 1978, **234**:E611-E616.
15. BORER KT, HALLFRISCH J, TSAI AC, HALLFRISCH C, KUHNS LR. The effects of exercise and dietary protein on somatic growth, body composition and serum cholesterol in adult hamsters. **J.Nutrition**, 1979, **109**: 222-228.

16. BORER KT, TRULSON ME, KUHNS LR. The role of limbic system in the control of hamster growth. **Brain Res.Bull.**, 1979, 4: 239-247.
17. BORER KT, ROWLAND N, MIROW A, BORER JR, RC, KELCH RP. Physiological and behavioral responses to starvation in the golden hamster. **Amer.J.Physiol.**, 1979, **236**: E105-E112
18. BORER KT, KELCH RP, PEUGH J, HUSEMAN C. Increased serum growth hormone and somatic growth in adult hamsters with hippocampal transections. **Neuroendocrinology**, 1979, **29**: 22-23.
19. BORER KT, PETERS NL, KELCH RP, TSAI AC, HOLDER S. Contribution of growth, fatness, and activity to weight disturbance following septohypothalamic cuts in adult hamsters. **J.comp.physiol.Psychol.** ,1979, **93**: 907-918.
20. BORER KT. Characteristics of growth-inducing exercise. **Physiol.Behav.**, 1980, **24**: 713-720.
21. TSAI AC, BACH J, BORER KT. Somatic, endocrine, and serum lipid changes during detraining in adult hamsters. **Amer.J.clin.Nutr.**, 1981, **34**: 373-376.
22. BORER KT, KELCH RP, HAYASHIDA T. Hamster growth hormone: Species specificity and physiological changes in blood and pituitary concentrations as measured by a homologous radioimmunoassay. **Neuroendocrinology**, 1982: **35**: 349-358.
23. BORER KT, KELCH RP, CORLEY K. Hamster prolactin: Physiological changes in blood and pituitary concentrations as measured by a homologous radioimmunoassay. **Neuroendocrinology**, 1982, **35**: 13-21.
24. TSAI AC, ROSENBERG R., BORER KT. Metabolic alterations induced by voluntary exercise and discontinuation of exercise in hamsters. **Amer. J. Clin.Nutr.**,1982, **35**: 943-949.
25. BORER KT, Campbell CS, Tabor J, Jorgenson K., Kandarian S., Gordon L. Exercise reverses photoperiodic anestrus in golden hamsters. **Biol. Reprod.**, 1983, **29**: 38-47.
26. POTTER CD, BORER KT, KATZ RV. Opiate-receptor blockade reduces voluntary running but not self-stimulation in hamsters. **Pharmacol. Physiol. Behav.**, 1983, **18**: 217-223.
27. BORER KT, POTTER CD, FILECCIA N. Basis for the hypoactivity that accompanies rapid weight gain in hamsters. **Physiol.Behav.**, 1983, **30**: 389-397.
28. BORER KT, SHAPIRO B, VINIK AI. A role for somatostatin in the control of hamster growth. **Brain Res. Bull.**, 1983, **11**: 663-669.
29. KLEMCKE HG, BARTKE A, BORER KT. Testicular prolactin receptors and

- serum growth hormone in golden hamsters: Effects of photoperiod and time of day. **Biol.Reprod.**, 1983, **29**: 605-614.
30. KLEMCKE HG, BARTKE A, BORER KT. Regulation of testicular prolactin and luteinizing hormone receptors in golden hamsters. **Endocrinology**, 1984, **114**: 594-603.
 31. BORER KT, ALLEN ER, SMALLEY RE, LUNDELL L, STOCKTON J. Recovery from energy deficit in golden hamsters. **Amer.J.Physiol.**, 1985, **248**: R439-R446.
 32. BORER KT, NICOSKI D, OWENS V. Alteration of the pulsatile growth hormone secretion by growth-inducing exercise: Involvement of endogenous opiates and somatostatin. **Endocrinology**, 1986, **118** :844-850.
 33. Campbell GT, Wagone, J, BORER KT, Kelch RP, Corley K. Ontogenesis of corticotropes and lactotropes in situ in the pituitary gland of the hamster. **Tissue Res.**, 1986, **245**: 673-679.
 34. Vriend J, BORER KT, Thliveris JA. Melatonin: Its antagonism of thyroxin's antisomatotropic activity in male Syrian hamsters. **Growth**, 1987, **51**: 35-43.
 35. BORER KT. Rostromedial septal area controls pulsatile growth hormone release in the golden hamster. **Brain Res. Bull.**, 1987, **18**: 485-490.
 36. BORER KT. Hormonal and nutritional determinants of catch-up growth in hamsters. **Growth**, 1987, **51**: 103-117.
 37. SHAPIRO B, BORER KT, FIG LM, VINIK AI. Exercise-induced hyperphagia in the hamster is associated with elevated plasma somatostatin-like immunoreactivity. **Regul. Peptides**, 1987, **18**: 85-92.
 38. NICHOLS JF, BORER KT. Physiological, metabolic, and running characteristics of senescent female hamsters. **Gerontology**, 1987, **33**: 349-356.
 39. NICHOLS JF, BORER KT. The effects of age on substrate depletion and hormonal responses during submaximal exercise in hamsters. **Physiol. Behav.**, 1987, **4**: 1-6.
 40. BORER KT, PRYOR A, CONN C, BONNA R, KIELB M. Group housing accelerates growth and induces obesity in adult hamsters. **Amer.J.Physiol.**, 1988, **255**: R128-R133.
 41. PIEPER DR, BORER KT, LOBOCKI CA, SAMUEL D. Exercise inhibits reproductive quiescence induced by exogenous melatonin in hamsters. **Amer.J.Physiol.**, 1988, **255**: R718-R723.
 42. BORER KT, BONNA R, KIELB M. Hippocampal serotonin mediates hypoactivity in dietarily obese hamsters: A possible manifestation of aging? **Pharmacol.Biochem.Behav.**, 1989, **31**: 885-892.
 43. CONN CA, BORER KT, KLUGER MJ. Body temperature rhythm and response

- to pyrogen in exercising and sedentary hamsters. **Med.Sci.Sports Exer.**, 1990, **22**: 636-642.
44. VRIEND J, SHEPPARD MS, BORER KT. Melatonin increases serum growth hormone and insulin like growth factor I (IGF-I) levels in male Syrian hamsters via hypothalamic neurotransmitters. **Growth Development and Aging** 1990, **54**: 165-171.
 45. BORER KT, DENNIS R. Activity disc and cage for continuous measurement of running and core temperature in hamsters. **Physiol. Behavior** **10**: 1057-1061.
 46. BORER K.T, BESTERVELT LL, MANNHEIM M., BROSAMER MB, THOMPSON, M, SWAMY U, PIPER WW. Stimulation by voluntary exercise of adrenal glucocorticoid secretion in mature female hamsters. **Physiol. Behavior** 1992, **51**: 713-718.
 47. CONN CA, MIALS, BORER KT. Food restriction postpones not prevents exercise-induced growth in hamsters. **Growth, Development, and Aging**, 1993,**57**: 193-204.
 48. ROWSEY PJ, BORER KT, KLUGER MJ. Role of prostaglandins in exercise-induced core temperature elevation in female Sprague-Dawley rats. **Amer.J.Physiol.** 1993,**265**: R1121-R1125.
 49. ROWSEY PJ., BORER KT., KLUGER MJ. Tumor necrosis factor is not involved in exercise-induced elevation in core temperature. **Amer.J.Physiol.** 1993, **265**: R1351-R1354.
 50. BORER KT. Neurohumoral mediation of exercise-induced growth. **Med. Sci. Sports Exercise** 1994,**26**: 741-754.
 51. BORER KT, CLOVER K. Control by light of the temperature rhythm in food restricted hamsters. **Physiol. Behav.** 1994 ,**56**: 385-391.
 52. CONN CA, KOZAK WE, TOOTEN CJ, NIEWOLD TA, BORER KT, KLUGER,M.J. Effect of exercise and food restriction on selected markers of the acute phase response in hamsters. **J.Appl.Physiol.** 1995, **78**: 458-465.
 53. CONN CA, KOZAK WE, TOOTEN CJ, GRUYS E, BORER K. KLUGER MJ. Effect of voluntary exercise and food restriction in response to lipopolysaccharide in hamsters. **J.Appl.Physiol.** 1995, **78**: 466-477.
 54. BORER KT. The effects of exercise on growth. **Sports Medicine**,1995,**20**: 375-397.
 55. BORER KT, PIEPER D, ALI H, LADELLA S, LOBOCKI C. Does exercise affect female hamster gonadotropins by reducing estradiol negative feedback? **Physiology and Behavior**, 1999, **65**: 855-861.
 56. BORER KT, CORNELISSEN G, HALBERG F, BROOK R, RAJAGOPALAN S, FAY W. Circadian blood pressure overswinging in a physically-fit normotensive Afro-

American woman. **American Journal of Hypertension**, 2002, 15: 827-830. PMID: 12219880

57. HALBERG F, CORNELISSEN G, WALL D, OTSUKA K, HALBERG J, KATINAS G, WATANABE Y, HALHUBER M, BOHN TM, DELMORE P, SIEGELOVA J, HOMOLKA P, FISER B, DUSEK J, SANCHEZ DE LA PENNA S, MAGGIONI C, DELYUKOV A, GORGO Y, GUBIN D, CARANDENTE F, SCHAFFER E, RHODUS N, **BORER K**, SANKOWSKY RP, SCHWARTZKOPF O. Engineering and governmental challenge: 7-day/24-hour chronobiologic blood pressure and heart rate screening: Part I. **Biomedical Instrumentation & Technology**, 2002, 36: 89-122.
58. HALBERG F, CORNELISSEN G, WALL D, OTSUKA K, HALBERG J, KATINAS G., WATANABE Y, HALHUBER M, BOHN TM, DELMORE P, SIEGELOVA J, HOMOLKA P, FISER B, DUSEK J, SANCHEZ DE LA PENNA S, MAGGIONI C, DELYUKOV A, GORGO Y, GUBIN D, CARANDENTE F, SCHAFFER E, RHODUS N, **BORER K**, SANKOWSKY RP, SCHWARTZKOPF O. Engineering and governmental challenge: 7-day/24-hour chronobiologic blood pressure and heart rate screening: Part II. **Biomedical Instrumentation & Technology**, 2002, 36:183-197.
59. BORER KT, Cornelissen G., Halberg F, Hughes C. Health impact of training intensity in older individuals. **Kinesiology** , 2003, 35: 210-218.
60. HALBERG F, CORNELISSEN G, REGAL P, OTSUKA K, WANG Z, KATINAS GS., SIEGELOVA J, HOMOLKA P, PRIKRYL P, CHIBISOV SM, HOLLEY DC, WENDT HW, BINGHAM C, PALM SL, SONKOWSKY RP, SOTHERN RB, PALES E, MIKULECKY M, TARQUINI R, PERFETTO F, SALT I R, MAGGIONI C, JOZSA R, KONRADOV AA, KHARLITSKAYA EV, REVILLAM M, WAN C, HEROLD M, SYUTKINA EV, MASALOV AV, FARAONE P, SINGH RB, SINGH RK, KUMAR A, SINGHS R, SUNDARAM S, SARABANDI T, PANTALEONI G, WATANABE Y, KUMAGAI Y, GUBIN D, UEZONO K, OLAH A, **BORER K**, KANABROCKIA EA, BATHINA S, HAUS E, HILLMAN D, SCHWARTZKOPFF O, BAKKEN EE, ZEMAN M. Chronoastrobiology: proposal, nine conferences, heliogeomagnetism, transyears, near-weeks, near-decades, phylogenetic and ontogenetic memories. **Biomedicine & Pharmacotherapy**. 2004, 58 Suppl 1:S150-87.
61. SUNDARAM S, HANUMANSETTY R, CORNELISSEN G, OTSUKA K, KATINAS GS, SIEGELOVA J, HOMOLKA P, SANCHEZ DE LA PENNA S, **BORER K**, SCHAFFER E, HOLLEY DC, HALBERG F. Blood pressure and pulse dynamics quantify everyday life's emotions — if excessive by circadian overswinging, chat. **American Journal of Hypertension** 2004, 17, 57A–58A.
62. BORER KT. Physical activity in prevention and amelioration of osteoporosis in women: Interaction of mechanical, hormonal, and dietary factors. **Sports Medicine** 2005, 35: 779-830. Review. PMID:16138787

63. BORER KT, WUORINEN E, BURANT C. Exercise energy expenditure is not consciously detected due to oro-gastric, not metabolic, basis of hunger sensation. **Appetite** 2005 , 45: 177-181. PMID: 15951056
64. KASA-VUBU JZ, YE W, BORER KT, ROSENTHAL A, MECMONGKOL T. Twenty-four hour ghrowth hormone and leptin secretion in active post-pubertal adolsecent girls. Impact of fitness, fatness and age at menarche. **Journal of Clinical Endocrinology and Metabolism** 2006, 91: 3935-3940. PMID: 16868058'
65. CORNÉLISSSEN G, HALBERG F, KATINAS G, SCHWARTZKOPFF O., HOLLEY D, **BORER K**, HOMOLKA P, SIEGELOVÁ J, FIŠER B, DUŠEK J, OTSUKA K, YANO A, DELCOURT A, TOUSSAINT G, SANCHEZ DE LA PENA S, GONZALEZ C, ZHAO Z, ASLANIAN N, SINGH RB, KUMAR A, TARQUINI R, PERFETTO F. Stroke and other vascular disease prevention by chronomics. **Scripta Medica** 2006, 79: 147-154.
66. BORER KT, FOGLEMAN K, GROSS M, LA NEW JM, DENGEL D. Walking intensity for postmenopausal bone mineral preservation and accrual. **Bone** 2007, 41: 713-721. PMID: 17686670
67. BORER KT. How effective is exercise in producing weight loss? **Kinesiology** 2008,2: 126-137.
68. BORER KT, KU K, DAOUD A, LASH RW, GROSS MM, KERNOZEK T. Mechanical, hormonal, and temporal parameters of exercise that increase markers of bone formation relative to resorption in postmenopausal women. **Osteoporosis International** 2008, **19** (Supplement 2): S255 (Abstract P112TH).
69. BORER KT, WUORINEN E, LUKOS J, DENVER J, PORGES S, BURANT, C. Two bouts of exercise before meals, but not after meals, lower fasting blood glucose. **Medicine and Science in Sports and Exercise** 2009, 41:1606-1614. doi: 10.1249/MSS.0b013e31819dfe14. PMID: 19568199.
70. BORER KT, WUORINEN E, KU K, BURANT C. Appetite responds to changes in meal content while ghrelin, leptin, and insulin track changes in energy availability. **The Journal of Clinical Endocrinology and Metabolism**, 2009 94: 2290-2298. doi: 10.1210/jc.2008-2495. PMID: 19401375

71. HIRUNTRAKUL A, NANAGARA R, EMASITHI A, BORER KT. Effect of once a week endurance exercise on fitness status in sedentary subjects. **Journal of Medical Association of Thailand** 2010, 93: 1070-1074. PMID:20873080
72. HIRUNTRAKUL A, NANAGARA R, EMASITHI A, BORER KT. Effect of endurance exercise on resting testosterone levels in sedentary subjects. **Central European Journal of Public Health** 2010, 18: 169-172. PMID:21033613
73. BORER KT. Nonhomeostatic control of human appetite and physical activity in regulation of energy balance. **Exercise and Sport Sciences Reviews**, 2010, 38: 144-121. doi: 10.1097/JES.0b013e3181e3728f. Review. PMID: 20577059.
74. WUORINEN EC, BORER KT. Circadian and ultradian components of hunger in human non-homeostatic meal-to-meal eating. **Physiology and Behavior**, 2013, 122: 8-16. doi: 10.1016/j.physbeh.2013.08.001.PMID:23973366.
75. BORER KT. Counterregulation of insulin by leptin as key component of autonomic regulation of body weight. **World Journal of Diabetes**, 2014, 5(5): 606-629. doi: 10.4239/wjd.v5.i5.606. Review. PMID: 25317239
76. SORIĆ M, STARC G , **BORER KT**, JURAK G, KOVAČ M, STREL J, MIŠIGOJ-DURAKOVIĆ M. Associations of objectively assessed sleep and physical activity in 11-year-old children. **Annals of Human Biology**, 2015;42:31-37. doi: 10.3109/03014460.2014.928367. PMID: 25007958.
77. JURAK G, SORIĆ M, STARC G, KOVAČ M, MIŠIGOJ-DURAKOVIĆ M, **BORER KT**, STREL J. School day and weekend patterns of physical activity in urban 11-year olds: a cross cultural comparison. **American Journal of Human Biology**, 2015, 27:192-200.
78. BORER KT. Why do exercise and dietary restriction during pregnancy affect glucose tolerance of the offspring in opposite ways? **Diabetes**, 2015, 64: 335-337. doi: 0.2337/db14-1476. PMID: 25614667. PMID: 25614667.
79. BORER KT. Interpreting physiology to prevent pathophysiology of obesity and type 2 diabetes. *J of Molecular Pathophysiology* 2015, 4:69-76.
80. Lin PJ, Borer KT. Reduced postprandial insulin resistance one hour after meal but not by pre-meal exercise: 2170 Board #322 June 2:3:30-5 PM. *Med Sci Sports Exerc* 2016, 48(5 Suppl): 613-614. doi: 10.1249/01.mss.0000486843.79145.62. PMID:27360995.
81. Lin PJ, Borer KT. Third exposure to a reduced carbohydrate meal lowers evening postprandial insulin and GIP responses and HOMA-IR estimate of insulin resistance.

BOOKS, BOOK CHAPTERS, AND FILMS:

1. Borer KT. Weight reduction in hamsters and rats: Differences in the effects of exercise and neonatal nutrition. In: D.Novin, W.Wyrwicka, and G.Bray (Eds.), **Hunger: Basic mechanisms and clinical implications**, New York: Raven Press, 1976, pp 225-241.
2. Borer KT. Exercise, nutrition, and growth. In: F.Obal and G. Benedek (Eds.) **Advances in Physiological Sciences**, vol.18: **Environmental Physiology**, New York: Pergamon Press and Budapest: Akademiai Kiado, 1981, pp 255-260.
3. Borer KT. Neuroendocrine lipostat is not confined to the ventromedial hypothalamus. Invited commentary on the article Le Magnen, J. The metabolic basis of dual periodicity of feeding in rats. **Biobehav.Brain Sciences**, 1981, 4:561-607.
4. Borer KT. The nonhomeostatic motivation to run in the golden hamster. In: A.R.Morrison and P.L.Strick (Eds.) **Changing concepts of the nervous system**, New York: Academic Press, 1982, pp 539-567.
5. Borer KT.(film content, production, and photography) and Frierson, M. (editing and technical assistance), **Muscles in motion**, 1982, Michigan Media Film Library, The University of Michigan.
6. Borer KT, Edington DW, White TP. (Eds) **Frontiers of exercise biology**, Big Ten Body of Knowledge Symposium Series, **Vol.13**, Champaign: Human Kinetics Publishers, 1983.
7. Borer KT, Raymond P, Dokas LR. Neuroendocrine effects of exercise. In: Borer KT, Edington DW, WhiteTP. (Eds.) **Frontiers of exercise biology**, Human Kinetics Publishers, 1983, pp 263-283.
8. Borer KT. The reciprocal relationship between endurance physical activity and body fatness. In: BW Hansen (Ed.) **Controversies in obesity**, New York: Praeger Scientific, 1983, pp 255-273.
10. Borer KT. Feeding and energy regulation in the golden hamster. In: HI Siegel (Ed.) **Golden hamster: Reproduction and behavior**, New York: Plenum, 1985, pp 363-408.
11. Borer, K.T. How running accelerates growth. In: AN Epstein, A.R. Morrison (Eds.) **Progress in psychobiology and physiological psychology**, New York: Academic Press, 1987, pp 47-115.
11. Borer KT. Exercise-induced facilitation of pulsatile growth hormone (GH) secretion and somatic growth. In: Z Laron A Rogol (Eds.) **Hormones and sport**, Serono Symposia Publications from Raven Press, **vol. 55**, New York: Raven Press, 1989, pp 21-40.

12. Borer KT. **Exercise Endocrinology**. Champaign, Il: Human Kinetics Publishers, 2003, 272 pp.
13. Borer KT. **Advanced Exercise Endocrinology**. Champaign, Il: Human Kinetics Publishers, 2013.
14. Borer KT, The autonomic nervous system in exercise: An integrative view (chapter 9, pp. 175-210). In C Tipton (Ed) **History of exercise physiology**, Champaign: Human Kinetics, 2014.

ABSTRACTS, SYMPOSIA:

1. Borer KT, Epstein AN. Disappearance of salt and sweet preferences in rats drinking without taste or smell. **The Physiologist**, 1965, **8** (3).
2. Borer KT. Absence of lipostatic weight control in exercising hamsters. Fortyfifth annual meeting of the **Eastern Psychological Association**, Philadelphia, April 18-20, **1974**.
3. Kooi A.A, Borer KT. Hamsters defend exercise- induced weight gain. Annual meeting of the **Animal Behavior Society**, University of Illinois, Urbana-Champaign, May 25-27, **1974**.
4. Borer KT. Changes in weight gain and deficits in exercise-associated food intake in hamsters with VMH and lateral diencephalic lesions. Fifth **International Conference on the Physiology of Food and Fluid Intake**, Jerusalem, Israel, October 13-17, **1974**.
5. Borer KT. and Valenstein, E.S. Weight regulation in hamsters and rats: Differences in the effects of exercise and neonatal nutrition. Conference on **Hunger: Basic mechanisms and clinical implications**, University of California, Los Angeles, California, January 15-17, **1975**.
6. Borer KT. Weight setpoint: A state of controlled growth suppression? Symposium on Body weight defense vs, body weight change in response to manipulation of the external environment, R. Gold, chairman, Fortysixth annual meeting of the **Eastern Psychological Association**, New York, April 3-5, **1975**.
7. Kaplan LR, Borer KT. Ontogeny of voluntary activity in the golden hamster: Its relationship to regulation of adult body size. Midwestern regional meeting of the **Animal Behavior Society**, University of Illinois, Chicago Circle, November 13-14, **1976**.
8. Borer KT, Kelch RP, White MP, Dolson L, Kuhns LR. Septal area controls growth in hamsters. Sixth annual meeting of the **Society for Neuroscience**, Toronto, Canada, November 7-11, **1976**.
9. Peters N, Holder S, Borer KT. Weight increases and hyperphagia: Difference in the effects of exercise and septohypothalamic knife cuts. Forty-seventh annual meeting of the **Eastern Psychological Association**, Boston, April 13-16, **1977**.

10. Borer KT. Neuroendocrine control of growth participates in regulation of adult body weight in golden hamsters. Sixth **International Conference on the Physiology of food and fluid intake**, Paris, July 25-28, **1977**.
11. Borer KT, Trulson ME, Wise RA. Changes in brain monoamines associated with growth acceleration in septal-lesioned hamsters. Seventh annual meeting of the **Society for Neuroscience**, Anaheim, California, November 7-10, **1977**.
12. Borer KT, Peugh J. Hyperphagia, hypoactivity, and growth acceleration in adult hamsters with hippocampal transections. Forty-ninth annual meeting of the **Eastern Psychological Association**, Washington, D.C., March 29-April 1, **1978**.
13. Borer KT, Kelch RP, Edington DW. Increased growth hormone secretion and somatic growth in exercising adult hamsters. Nineteen seventy eight annual meeting of the **American College of Sports Medicine**, Washington, D.C., May 24-27, **1978**.
14. Borer KT, Kelch RP, Trulson ME. Increased serum growth hormone (GH) and somatic growth in adult hamsters with hippocampal transections. Eighth annual meeting of the **Society for Neuroscience**, St. Louis, Missouri, November 5-9, **1978**.
15. Borer KT. Invited participant at a workshop on **Nutrient intake and work performance in man** organized by DH Calloway of Department of Nutrition, University of California, Berkeley; La Jolla, California, October 30- November 3, **1978**.
16. Borer KT, Rowland N. Physiological and behavioral responses to starvation in the golden hamster. Forty-ninth annual meeting of the **Eastern Psychological Association**, Philadelphia, Pennsylvania, April **1979**.
17. Borer KT, Johns PR, Dokas L, Ekop J. Increased nuclear proliferation in muscle and bone of exercising hamsters. Twenty-eighth **International Congress of Physiological Sciences**, Budapest, Hungary, July 13-19, **1980**.
18. Borer KT, Hallfrisch J. Nutritional modulation of exercise-induced growth. **Satellite Symposium on sports physiology**, Twenty-eighth International Congress of Physiological Sciences, Budapest, Hungary, July 10-13, **1980**.
19. Borer KT. Dependence of weight regulation and growth on uninterrupted access to food in hamsters. Seventh **International Conference on Physiology of Food and Fluid Intake**, Warsaw, Poland, July 2-10, **1980**.
20. Borer KT. Nutritional modulation of exercise-induced growth. **Workshop on nutrition research**, The University of Michigan, Waldenwoods, Michigan, December 12-13, **1980**.
21. Shapiro B, Vinik AI, Borer KT. Effects of nutritional status and exercise on CNS and gut/pancreatic somatostatin. **Workshop on nutrition research**, The University of Michigan, Waldenwoods, Michigan, December 12-13, **1980**.

22. Potter CD, Borer KT, Fileccia N. Characteristics of hypoactivity accompanying increased weight gain. Nineteen eighty-one annual meeting of the **American College of Sports Medicine**, Miami Beach, Florida, May 27-29, **1981**.
23. Borer KT, Campbell CS, Gordon L, Jorgenson K, Tabor J. Exercise reinstates estrous cycles in hamsters maintained in short photoperiods. Eleventh annual meeting of the **Society for Neuroscience**, Los Angeles, California, October 18-23, **1981**.
24. Borer KT. Neuroendocrine effects of exercise. Symposium on **Future issues in exercise biology**, The University of Michigan, Ann Arbor, Michigan, November 12-14, **1981**.
25. Klemcke H, Bartke A, Borer KT. Testicular PRL and HCG binding and serum GH in male golden hamsters: Effects of photoperiod and time of day. Seventh annual meeting of the **American Society of Andrology**, Head Island, South Carolina, February 24-26, **1982**.
26. Moffatt RJ, Borer KT. Body composition, energy consumption, and lipogenic enzyme activity as affected by chronic exercise and retirement from chronic exercise in the adult hamster. Nineteen eighty-two annual meeting of the **American Association for Health, Physical Education, Recreation, and Dance**, Houston, Texas, April, **1982**.
27. Borer KT, Allen EA, Moffatt RJ. Not by food alone (Regulation of energy balance in the hamster); Symposium on **Recent advances in the neuroscience of ingestive behavior**, Fifty-third annual meeting of the **Eastern Psychological Association**, Baltimore, Maryland, April 14-17, **1982**.
28. Potter CD, Borer KT. Endogenous opiates and voluntary physical activity. **Finley-Carpenter Research Conference**, School of Education, The University of Michigan, Ann Arbor, Michigan, May 7-8, **1982**.
29. Borer KT. Interdependence of body fatness and levels of physical activity. Symposium on **Controversies in obesity**, Center for Human Growth and Development, The University of Michigan, Ann Arbor, Michigan, May 26-27, **1982**.
30. Borer KT, Segal S, Vinik AI, Shapiro B. Growth- inducing hippocampal transections affect limbic and gastrointestinal somatostatin and limbic choline acetyltransferase concentrations in hamsters. Twelfth annual meeting of the **Society for Neuroscience**, Minneapolis, Minnesota, October 31-November 5, **1982**.
31. Nichols J, Borer KT. Reversal of photoperiodic anestrus by growth-inducing limbic lesions in female hamsters. Twelfth annual meeting of the **Society for Neuroscience**, Minneapolis, Minnesota, October 31- November 5, **1982**.
32. Potter CD, Borer KT, Katz RJ. Opiate receptor blockade reduces voluntary running but not self-stimulation in hamsters. Twelfth annual meeting of the **Society for Neuroscience**, Minneapolis, Minnesota, October 31- November 5, **1982**.
33. Borer KT, Campbell CS, Kandarian S. Facilitation of neuroendocrine function by exercise in female hamsters. Annual meeting of the Michigan Chapter, **Society**

- for Neuroscience**, Michigan State University, East Lansing, Michigan, March 12, 1983.
34. Borer KT. Reversal by exercise of photoperiodic anestrus in hamsters: LH involvement. Sixteenth annual meeting of the **Society for the Study of Reproduction**, Case Western Reserve University, Cleveland, Ohio, August 8-10, 1983.
 35. Klemcke H, Bartke A, Amador A, Soares MJ, Talamantes F., Borer KT. Autoregulation of testicular prolactin. Sixty-fifth annual meeting of the **Endocrine Society**, San Antonio, Texas, June 1983.
 36. Smalley RL, Borer KT. Brown adipose tissue metabolism in exercising hamsters. **AAAS annual meeting**, Detroit, Michigan, May 26-31, 1983.
 37. Nicoski DR, Borer, KT. Growth-induced changes in the pulsatile pattern of growth hormone (GH) secretion in the hamster: The involvement of endogenous opiates. Thirteenth annual meeting of the **Society for Neuroscience**, Boston, Massachusetts, November 6-11, 1983.
 38. Borer KT, Nicoski DR. Alteration by exercise of the pulsatile pattern of the anterior pituitary hormone release. Annual meeting of the **Michigan Chapter, Society for Neuroscience**, East Lansing, Michigan, March 24, 1984.
 39. Borer KT. Reversal by exercise of photoperiodic anestrus in Syrian hamsters : Changes in the pattern of LH release. Fourteenth annual meeting of the **Society for Neuroscience**, Anaheim, California, October 10-15, 1984.
 40. Borer KT, Allen ER, Stockton J, Smalley RE. Recovery from energy deficit in the golden hamster. Fall meeting of the **American Physiological Society**, Lexington, Kentucky, August 26-31, 1984.
 41. Moffatt RJ, Borer KT, Tsai AC, Smalley R. Deficient compensations for the energy cost of running in golden hamsters. Fall meeting of the **American Physiological Society**, Lexington, Kentucky, August 26-31, 1984.
 42. Borer KT. Antagonistic effects of exercise and endogenous opiates on timing of LH surge in anestrus golden hamsters. Eighteenth annual meeting of the **Society for the Study of Reproduction**, McGill University, Montreal, Canada, July 22-25, 1985.
 43. Nichols JF, Borer KT. The effects of age on substrate utilization during prolonged submaximal exercise in hamsters. Nineteen eighty-five annual meeting of the **American College of Sports Medicine**, 1985.
 44. Vriend J, Borer KT. Effects of hypothyroidism, thyroxine replacement, and melatonin on serum growth hormone levels in male Syrian hamsters. Sixty-eighth annual meeting of the **Endocrine Society**, Anaheim, California, June 25-27, 1986.
 45. Borer KT, Pearson W. Adrenergic restraint of somatostatin action promotes pulsatile growth hormone secretion in hamsters. Sixty-eighth annual meeting of the

Endocrine Society, Anaheim, California, June 25-27, **1986**.

46. Borer KT. Role of exercise and endogenous opiates (EOP) in pulsatile luteinizing hormone (LH) and prolactin (PRL) release in anestrus golden hamsters. Nineteenth annual meeting of the **Society for the Study of Reproduction**, Cornell University, Ithaca, New York, July 14-17, **1986**.
47. Borer KT. The role of septo-hippocampal serotonin projection in nutritional modulation of running activity in hamsters. Annual meeting of the **Michigan Chapter, Society for Neuroscience**, Ann Arbor, Michigan, March 22, **1986**.
48. Borer KT. The role of the paraventricular (PV) hypothalamic nucleus in the photoperiodic suppression of spontaneous running activity in hamsters. Annual meeting of the **Michigan Chapter, Society for Neuroscience**, Ann Arbor, Michigan, March 22, **1986**.
49. Borer KT. The role of the paraventricular (PV) hypothalamic nucleus in the photoperiodic suppression of spontaneous running activity in hamsters. Sixteenth annual meeting of the **Society for Neuroscience**, Washington, D.C., November 9-14, **1986**.
50. Borna R Bore, KT. The role of septo-hippocampal serotonin projection in nutritional modulation of running activity in hamsters. Sixteenth annual meeting of the **Society for Neuroscience**, Washington, D.C., November 9-16, **1986**.
51. Borer KT. Spontaneous running advances the onset of luteinizing hormone surge and blocks the photoperiodic inhibition of luteinizing hormone release in golden hamsters maintained in nonstimulatory photoperiods. First **International Capri Conference on Brain and Female Reproductive Function: Basic and Clinical Aspects**, Capri, Italy, May 25-30, **1987**.
52. Borer KT, Amador AG. Facilitation by pentobarbital of growth hormone secretion in hamsters: The involvement of endogenous somatostatin. Seventeenth annual meeting of the **Society for Neuroscience**, New Orleans, Louisiana, November 16-21, **1987**.
53. Pieper DR, Lobocki CA, Samuels D, Borer KT. Voluntary exercise (EX) prevents the anestrus induced by exogenous melatonin (MEL) in pinealectomized (PX) female golden hamsters. Seventeenth annual meeting of the **Society for Neuroscience**, New Orleans, Louisiana, November 16-21, **1987**.
54. Borer KT. Exercise-induced facilitation of pulsatile growth hormone (GH) secretion and somatic growth. **Ares Serono Symposium on Hormones and Sport**, Dubrovnik, Yugoslavia, August 29-30, **1988**.
55. Conn CA, Kluger MJ, Borer KT. Nocturnal wheel running affects both nighttime and daytime body temperature in hamsters. Thirty-sixth annual meeting of the **American College of Sports Medicine**, Baltimore, Maryland, May 29-June 3, 1989.
56. Conn CA, Mial S, Borer KT. Prolonged food restriction does not eliminate

exercise-induced catch-up growth in hamsters. Thirty-seventh annual meeting of the **American College of Sports Medicine**, Salt Lake City, UT, May 22-25, 1990.

57. Borer KT, Johnson P, Brosamer M.-B, Swamy U, Thompson M. Photoperiodic modulation of seasonal obesity in hamsters: Are cortisol and prolactin phase shifts involved? Second meeting of the **Society for the Research on Biological Rhythms**, Jacksonville, FL, May 9-13, 1990.
58. Pieper DR, Loboeki CA, Borer KT. Chronic exercise has no effect on serum melatonin levels in female hamsters on long or on short photoperiod. Second Meeting of the **Society for the Research on Biological Rhythms**, Jacksonville, FL, May 9-13, 1990.
59. Johnson P, Borer KT. Thermoregulatory consequences of hippocampal transections and septal lesions : delayed responses to exogenous pyrogen and delayed drop in nocturnal temperature. Twentieth annual meeting of the **Society for Neuroscience**, St. Louis, MO, October 28-November 2, 1990.
60. Bartness T, McGriff W, Maharaj M, Borer KT. Photoperiodic control of serum insulin: Effects on energy balance and reproductive status in siberian hamsters. **FASEB Meeting** 1991.
61. Borer KT, Jansson J.-O, Conn CA, Isaksson OPG. Nutritional control of the expression of exercise-induced growth in mature hamsters. Abstracts, **Society for Neuroscience** New Orleans L.A., 1991.
62. Borer KT. "Neurohumoral mediators of exercise-induced growth" at a symposium entitled "exercise modulation of human growth" organized by Dr. Dan Cooper of UCLA-Harbor General Hospital and to be held at the **FASEB Meeting** Anaheim, California April 4-7, 1992.
63. Johnson P., Kluger M, Borer KT, Conn C. Is exercise induced increase in body temperature of female rats caused by interleukin-1(IL-1) or tumor necrosis factor? Thirty-ninth annual meeting of the **American College of Sports Medicine**, Dallas, TX. May 25030, 1992.
64. Conn C, Kluger M, Borer KT. Effects of food restriction on exercise-induced elevations in body temperature. Thirty-ninth annual meetings of the **American College of Sports Medicine**, Dallas, TX. May 25030, 1992.
65. Borer KT, Conn CA, Jansson J.-O, Ekberg S, Steenfos H, Ohlsson C, Isgaard J, Isaksson OGP. Liver hypertrophy in growth-inducing exercise. Fortieth annual meetings of the **American College of Sports Medicine**, Dallas, TX. May 25030, 1992, *Exer.Sci.Sports Med.* 1992,24,Suppl.S167:Abstract 999.
66. Borer KT, Johnson P, Conn CA, Smith P, Jang S. Hippocampal control over temperature and activity rhythms in hamsters. Third meeting of the **Society for the Research on Biological Rhythms**, May 1992.
67. Pieper DR, Borer KT, Loboeki CA, Olson I. Relation of nutrition, exercise and estrous cyclicity in young female hamsters. Annual meeting of the **Society for the Study of Reproduction**, May 1992.

68. Borer KT, Conn CA, Jansson J.-O, Carlsson B, Ohlsson C, Isaksson OGP. Do tissue levels of GH receptor, IGF-I and IGF-I receptor mRNAs determine the magnitude of exercise-induced catch-up growth? Growth Factors, Peptides and Receptors '92 XIIth **Washington International Spring Symposium**, June 1992.
69. Borer KT. Endurance exercise, weight maintenance and growth. **Big Ten Body of Knowledge Symposium** :Capstone Knowledge in Kinesiology ,University of Michigan, Nov 6-8,1993.
70. Rowsey PJ, Borer KT, Kluger MJ. Role of prostaglandin in exercise-induced core temperature elevation in female Sprague-Dawley rats. **FASEB**,New Orleans, LA, March 28-April 1, 1993.
71. Borer KT, Donaton S. Role for the hippocampus in exercise- induced lengthening of the period of hamster rhythms. Abstracts, **Society for Neuroscience** 1993, **19**,569: Abstract 235.12.
72. Borer KT. Brain control of growth hormone signals in exercise-induced catch-up growth. Kinesiology Day, University of Michigan, March 10, 1994.
73. Borer KT, Clover K. Control by light of the temperature rhythm in food restricted hamsters. Fourth meeting of the **Society for the Research on Biological Rhythms**, Amalia Island Plantation, Jacksonville,FL,May 4-7, 1994.
74. Borer KT, Chao M.-M. Regional fat distribution is differentially affected by endurance exercise, energy deficit, and obesifying diet. Fortyfirst annual meeting of the **Americal College of Sports Medicine**, Indianapolis, IN,June 6-8,1994. **Medicine & Science in Sports & Exercise**, 1994, **26**, Supplement, S196:Abstract 1103
75. Borer KT, Chao M, Rhodes T, McClellan E, Robinson ICAF. Growth hormone secretory pattern during exercise-induced catch-up growth. Abstracts, **Society for Neuroscience** 1994, **20**,part 1:464 (202.14) .
76. Yeo S, Borer KT, Behrend G, Boone B. Detrimental effect of dietary restriction on exercise-induced growth during pregnancy. Fortysecond annual meeting of the American College of Sports Medicine, Minneapolis, MN, May 31-June 2, 1995. **Medicine & Science in Sports & Exercise** 1995,**27**,Supplement, S231:Abstract 1293.
77. Yeo S, Borer KT, Behrent G, Mauger D. No suppression of growth pulsatility in exercising pregnant hamsters. Abstracts, **Society for Neuroscience** 1995, **21**,Part 2:1063 (423.1).
78. Pieper D, Ali H, Ladella S ,Lobocki C, Borer KT. Voluntary exercise inhibits basal gonadotropin secretion in ovariectomized, non-replaced, but not ovariectomized hamsters treated with estradiol. Abstracts, **Society for Neuroscience** 1995, **21**,Part 3:1895 (744.3).
79. Borer KT, Pear E, Courtney S, Marino S. Divergence of nocturnal temperature from activity and heart rate rhythms in postmenopausal women.Fifth meeting of the **Society for the Research on Biological Rhythms**, Amalia

Island Plantation, Jacksonville,FL,May 8-12, 1996.

80. Borer KT, Kennedy J, Kaplan J, Stevens K, Mehta H, Drellis M. Timing of growth in exercising hamsters: Expression of IGF-I and GH receptor/BP mRNA. Abstracts, **Society for Neuroscience** 1996, **22**, Part 2:1220 (486.9).
81. Borer KT, Christman G, Lim Y, Grewal P, Abu-Isa R. Walking speed is stimulatory to pulsatile growth hormone secretion in post-menopausal women. Fortyfourth annual meeting of the American College of Sports Medicine, Denver,CO May 28-31, 1997. **Exer.Sci.Sports Med.** 1997, **29**, Suppl.: S282:Abstract 1599.
82. Borer KT, Christman G., LimY, Grewal P, Abu-Isa R. Deleterious effects of walking speed on insulin sensitivity in post-menopausal women. Program, Seventy-ninth annual meeting of the **Endocrine Society**, Minneapolis, MIN, June 11- 14, 1997.
83. Borer KT. Speed-associated increases in plasma leptin are related to decreased energy intake and not decreased body fat in postmenopausal women. Fortyfifth annual meeting of the American College of Sports Medicine, Minneapolis, MO,May 29-June 2, 1998. **Medicine & Science in Sports & Exercise**, 1998, **30**, Supplement, S185:Abstract 1051.
84. Borer KT, Pieper D, Loboeki C. Walking speed affects the quantity and timing of cortisol secretion in postmenopausal women. Sixth meeting of the **Society for Research on Biological Rhythms**, Jacksonville, FI, May 6-10, 1998.
85. Borer KT, Pieper D, Trout A, Loboeki C. High exercise intensity during training increases androgenic action in postmenopausal women. Fortysixth meeting of the American College of Sports Medicine, Seattle, WA, June 2-5, 1999. **Medicine & Science in Sports & Exercise**, 1999, **31**, Supplement, S181: Abstract 809.
86. LaNew JM, Borer KT, Garcia AW, Zakrajsek J. Threshold exercise intensity for inducing fat loss in middle-aged women. Fortysixth meeting of the American College of Sports Medicine, Seattle, WA, June 2-5, 1999. **Medicine & Science in Sports & Exercise**, 1999, **31**, Supplement, S370: Abstract 1882.
87. Borer KT, Cornelissen G, Halberg, F. Week-long blood pressure monitoring for reference values and diagnosis of disease risk syndromes. Seventh meeting of the **Society for Research on Biological Rhythms**, Jacksonville, FI, May 10-13, 2000.
88. Borer KT, Fay WP, Parker A. Endurance training reduces the plasmaconcentration of the PAI-1 clotting factor in postmenopausal women. **Medicine & Science in**

Sports & Exercise, 2000, **32**, Supplement, S53: Abstract 91.

89. Borer KT, Cornelissen G, Halberg, F. Walking intensity modifies systolic and pulse pressures in postmenopausal women. Abstracts, **Society for Neuroscience**, 26: 1947 (Abstract 728.4), 2000 .
90. Borer KT, Fay WP. Increased Plasma Fibrinogen and Decreased Plasminogen Activator Inhibitor-1 (PAI-1) After Fifteen Weeks of Training in Postmenopausal Women. **American College of Sports Medicine**, Baltimore, MD, May 30–June 2, 2001. **Medicine & Science in Sports & Exercise**, 2001, **33**, Supplement, S51:290.
91. Borer KT, Sowers M, Christman GM, Kasa-Vubu JZ. Inverse Changes in Plasma Growth Hormone (GH) and Leptin Concentration in Postmenopausal Women Are Not Related to Fat Loss or Exercise Intensity. **Endocrine Society Meeting**, Denver, CO, June 20-23, 2001.
92. Wuorinen EC, Borer KT. Stimulating effects of training intensity on nocturnal melatonin levels in postmenopausal women. **Endocrine Society Meeting**, Denver, CO, June 20-23, 2001.
93. Wuorinen E, Horowitz JF, Kasa-Vubu J, Pieper D, Borer KT. Training-induced changes in the lipolytic response to an evening meal are related to changes in nocturnal growth hormone and cortisol. **American College of Sports Medicine**, May 2002. **Medicine & Science in Sports & Exercise**, 2002, **34**, Supplement, S276:1546.
94. Fogleman K, Borer KT, Sowers M. The effect of walking on blood osteocalcin levels in postmenopausal women. **Endocrine Society Meeting**, June 2002.
95. Hughes C, Borer KT, Cornelissen G, Halberg F. Walking intensity as a hypotensive stimulus in postmenopausal women. **American College of Sports Medicine** annual meeting, May 2003. **Medicine & Science in Sports & Exercise**, 2003, **35**, Supplement, S44:239.
96. LaNew J, Borer KT, Garcia AW, Zakrajsek J, Sowers M. Walking intensity is not a stimulus for fat loss in postmenopausal women. **American College of Sports Medicine** annual meeting, May 2003. **Medicine & Science in Sports & Exercise**, 2003, **35**, Supplement, S308:1707.
97. Fogleman K, Borer KT, Sowers M. Walking intensity stimulates increases in BMD in post-menopausal women. **American College of Sports Medicine** annual meeting, May 2003. **Medicine & Science in Sports & Exercise**, 2003, **35**, Supplement, S20:95.
98. Fogleman K, Borer KT, Sowers M, Wuorinen EC. Walking stimulates increases in BMD in post-menopausal women. Presented at the **Endocrine Society** annual

meeting, 2003.

99. Wuorinen EC, Borer KT, Horowitz J, Burant C. Role of insulin and leptin in the suppression of appetite by exercise. **Endocrine Society** annual meeting, Philadelphia, June 17-20, 2003.
100. Kasa-Vubu JZ, Borer K, Carlson NE. Effects of body composition, cardiovascular fitness, and age at menarche on 24-hour growth hormone concentration in young postpubertal active adolescent girls. Presented at the **Endocrine Society** annual meeting, Philadelphia, June 17-20, 2003.
101. Wuorinen EC, Borer KT, Horowitz JF, Burant C. Increased fullness and appetite suppression by exercise in postmenopausal women. Annual meeting of the **Society for the Study of Ingestive Behavior**, Groningen, The Netherlands, July 15-18, 2003.
102. Wuorinen EC, Borer KT, Fogleman KM, Horowitz JF, Burant C. Ghrelin is stimulated by exercise but unassociated with increased hunger or reduced fullness. **Society for Neuroscience** annual meeting, New Orleans, November 7-12, 2003.
103. Wuorinen EC, Lin P-J, Burant C, Borer KT. Exercise-induced ghrelin secretion is associated with increased lipolysis. **Medicine & Science in Sports & Exercise** 2004,36: S140:996 (Abstract)
104. Borer KT. Is there exercise-induced appetite suppression? Invited talk at the **Columbia University Appetitive Seminar**, May 2004..
104. Wuorinen E, Lin PJ, Burant C. and Borer K.T. Is increased lipolysis during fasting exercise due to ghrelin-induced growth hormone secretion? **Program**, Annual meeting of the **Endocrine Society**, New Orleans, LA, June 19-20, 2004.
105. Hughes C., Borer K. Relationship between intraday exercise participation and dietary behavior in American adults. **Public Health Student Caucus**, 132nd annual meeting, Washington, D.C., November 6-10, 2004.
106. Sundaram B, Hanumansetty R, Cornelissen G, Otsuka K., Katinas GS, Seigelova J, Homolka P, De La Pena SS, **Borer K**, Schaffer E, Holley DC, Halberg F. Blood pressure and pulse dynamics quantify everyday life's emotions- if excessive by circadian overswinging, CHAT. **Amer. J.Hypertension** 2004, **17** (5, part 2): 57A, abstract P-72.
106. Wuorinen EC, Borer KT, Burant C. Exercise in fasted state delays the CCK response to a meal. **Society for the Study of Ingestive Behavior**, University of Cincinnati, Cincinnati, Ohio, July 20-23, 2004

107. Kasa-Vubu JZ, Rosenthal A, Borer KT, Meckmongkol T. Twenty-four hour growth hormone and leptin secretion in active post-pubertal girls. Impact of fitness, body composition and age at menarche. **Endocrine Society**, San Diego, CA, June 4-6, 2005.
108. Fogleman KM, Gross M Borer KT. Fitness level and vertical forces generated during walking in post-menopausal women. **American College of Sports Medicine** annual meeting, June 2005. **Medicine & Science in Sports & Exercise** 2005,37:
109. Wuorinen EC, Borer KT, Burant C. No effect of moderate or high intensity exercise on psychophysical ratings of appetite in postmenopausal women. **Society for the Study of Ingestive Behavior**, Pittsburg, PA, June 2005.
110. Borer KT, Wuorinen E, Burant C, Timing of exercise with respect to meals affects circadian glucoregulation. **First International Congress of Chronobiology-Applied Chronomedicine**, Antalya, Turkey, June 1-5, 2005.
111. Borer KT. The effects of exercise in prevention and amelioration of osteoporosis. **Fourth International Congress of Kinesiology**, Opatija, Croatia, Europe, September 7-11, 2005.
112. Wuorinen E, Borer KT and Burant, C. Ghrelin is stimulated more by lack of gastrointestinal calories than by exercise energy expenditure. Annual meeting of the **Endocrine Society**, Boston, MA, June 22 to 27, 2006.
113. Borer KT, Wuorinen E, and Burant C. Exercise increases meal-associated ghrelin secretion independently of its intensity. 88th Annual meeting of the **Endocrine Society**, Boston, MA, June 22 to 27, 2006.
114. Hiruntrakul A, Borer KT, Wuorinen E, Burant C. Caloric expenditure rather than exercise intensity is a stimulus for cortisol secretion. **Society for Neuroscience** annual meeting, Atlanta, GA, October 14-18, 2006.
115. Borer KT, Wuorinen E, and Burant, C. Caloric expenditure rather than exercise intensity is a stimulus for GH secretion and GH pulse advance. 89th Annual meeting of the **Endocrine Society**, Toronto, Ontario, Canada, June 2 to 5, 2007.
116. Borer KT, Wuorinen E, and Burant, C. Tracking by leptin of negative energy balance induced by exercise or food restriction. **American College of Sports Medicine** annual meeting, New Orleans, LA, May 30-June 2, 2005.
117. Borer KT, Wuorinen E, and Burant, C. Associations of plasma ghrelin, leptin and cholecystokinin (CCK) with sensations of hunger and fullness during manipulations of energy balance by meal size, exercise and intravenous nutrient replacement. **Society for the Study of Ingestive Behavior**, Steamboat Springs, July 24-29, 2007.

118. Borer KT, Daoud A, Lash RW, Gross MM, Kernozek T. Parameters of exercise that increase markers of bone formation relative to resorption in postmenopausal women. **American College of Sports Medicine** annual meeting, Indianapolis, IN, May 28-31, 2008.
119. Borer KT, Wuorinen E, and Burant, C. Loss of exercise-associated suppression of hunger and plasma leptin in obese but not lean women. 90th Annual meeting of the **Endocrine Society**, San Francisco, CA, June 15-18, 2008.
120. Borer KT, Wuorinen E, and Burant, C. Ghrelin/leptin ratio tracks energy balance, while ratings of appetite track only meal size while sedentary and give paradoxical values to exercise energy expenditure.. **Society for the Study of Ingestive Behavior**, Paris, France, July 16-19,2008.
121. Borer KT. Why we do not detect calories expended in exercise: An endocrine perspective. Keynote speaker for the plenary session Biology and medicine of Sport and Exercise: **5th Conference on Kinesiology**, University of Zagreb, Zagreb, Croatia , Sep 14, 2008.
122. Borer, KT. Invited postgraduate lectures on the theme The effects of exercise on energy regulation delivered by teleconference September 9 and 10, 2008 at the **Faculty of Kinesiology, University of Zagreb**:
- 1.The effects of exercise on energy regulation
 2. Exercise energy expenditure and appetite
 3. Why we do not detect calories expended in exercise.
123. Borer KT, Ku K, Daoud A, Gross M, Lash R, Kernozek T. Mechanical, hormonal and temporal parameters of exercise that increase markers of bone formation relative to resorption in postmenopausal women. **World Congress on Osteoporosis**, Bangkok, Thailand, Dec 3-7, 2008.
124. Borer KT, Wuorinen E, Ku K. Appetite responds to gastrointestinal events while ghrelin, leptin, and insulin track energy expenditure. **American College of Sports Medicine** annual meeting, Seattle, WA, May 27-30, 2009.
125. Borer KT, Ku K, Daoud A, Gross M, Lash R, Kernozek T. Bone marker responses to exercise parameters: relative effectiveness of mechanical, temporal, and hormonal stimulation. **International Society for Clinical Densitometry and World Congress on Osteoporosis**, Orlando, FL, March 11-14, 2009.
126. Borer KT, Wuorinen E, Ku K. Changes in brain-derived neurotrophic factor (BDNF) are not related to exercise-induced appetite suppression. 91st Annual Meeting of the **Endocrine Society**. Washington, D.C., June 10-13, 2009.

127. Borer KT. Effects of exercise on obesity. Invited lecture at the Ohio River Regional **American Association of Clinical Endocrinologists** Meeting, Pittsburgh, PA, July 24-26, 2009.
- 128 Borer KT. The role of physical activity and hormones in human appetite and energy regulation. Invited talk at the **School of Health and Physical Education. East China Normal University**, Shanghai, China, June 9, 2010.
129. Borer KT. Changing views of exercise role in energy regulation. Invited talk, University of Florida, Tallahassee, March 25, 2011.
130. Lin P-J, Borer, KT. Control of appetite by gut peptides, exercise, and diet. **American College of Sports Medicine** 58th annual meeting & 2nd World Congress on Exercise is Medicine, Denver, CO, May 31-June 4, 2011.
131. Borer, KT. Leptin: If it does not work in obese humans, what is its role in energy regulation? Invited Tutorial. **American College of Sports Medicine** 58th annual meeting & 2nd World Congress on Exercise is Medicine, Denver, CO, June 3, 2011.
132. Borer KT, Zheng Q, Daoud AI, Kernozek T, Gross MM, Roessler B. Facilitation of osteogenic bone marker release in postmenopausal women by single rather than spaced mechanical loading or anabolic hormones. . 93rd Annual Meeting of the **Endocrine Society**, Boston, MA, June 4-7, 2011.
133. Borer KT. Keynote address: Why exercise is a necessary adjunct to dieting when the purpose is weight loss, Session on Biology and Medicine, **6th Conference on Kinesiology**, Opatija, Croatia, Europe, September 8-11, 2011.
134. Lin P-J, Borer KT. Repeat meal of paleolithic diet composition lowers insulin to glucose ratio independently of exercise. **American College of Sports Medicine** 59th annual meeting & 2nd World Congress on Exercise is Medicine, San Francisco, CA, May 30, June 3, 2012.
135. Lin P-J, Borer KT. Repeat meal of paleolithic diet composition causes postprandial declines in gastric inhibitory polypeptide and insulin independently of exercise. 94th Annual Meeting of the **Endocrine Society**, Huston, TX, June 23-26, 2012
136. Lin P-J, Borer KT. Differential effects of diet composition and exercise on human hunger and satiation. **American Society of Nutrition, FASEB**, Boston, MA, April 20-24, 2013
137. Borer KT, Guan L, Lincoln F, Yang Y. Leptin reduces weight regain in sedentary mature hamsters, but not during acceleration of growth by exercise. **Biologic Responses to Weight Loss and Weight Regain – An ADA Research Symposium**, Washington, DC, April 26-28, 2013.

138. Lin P-J, Borer KT. The Effect Of Meal Composition On Glucose-Dependent Insulinotropic Polypeptide, Gastric Emptying Rate, and Appetite . **American College of Sports Medicine**, Indianapolis,IN, May 28-June 1, 2013.
139. Lin P-J, Borer KT. Differential proximal (GIP) and distal (GLP-1) gut peptide relationship to satiation in response to diet composition and exercise. **Endocrine Society** Annual Meeting, San Francisco, CA, June 15-18, 2013.
140. Borer KT, Yang YQ, Li LJ, Jepsen K, Devlin MJ. Exercise stimulates whole-body growth and skeletal elongation without an effect on long bone structure. **American College of Sports Medicine**, Orlando, FL, May 27-31, 2014.
141. Borer KT, Bortfeld K, Litrell A, Nguyen K, Theis J, Desai B. Administration of leptin potentiates growth of lean body mass at the expense of body fat. **Society for the Study of Ingestive Behavior** Annual meeting, Seattle, WA, July 29-August 2, 2014.
143. Borer KT, Yang YQ, Li LJ, Jepsen K, Devlin MJ. Leptin effects on bone depend on the presence or absence of growth. **Endocrine Society** Annual Meeting, Chicago, IL, June 21-24, 2014.
144. Borer KT, Devlin M, Jepsen K, Li L, Yang J. Exogenous leptin re-partitions components of body mass during growth and recovery from weight loss. **Endocrine Society** Annual Meeting, San Diego CA, March 4-7, 2015.
145. Lin P-J, Borer KT. Exercise-induced anorexia associated with prandial state but not the satiating gut peptides. **American College of Sports Medicine** Annual Meeting, San Diego CA, May 27-30, 2015.
146. Lin P-J, Borer KT. Third Exposure to a Reduced Carbohydrate Meal Lowers Evening Postprandial Insulin and Glucose-Dependent Insulinotropic Peptide (GIP). **Rachmiel Levine-Arthur Riggs Diabetes Symposium**, Long Beach, CA, March 6-9, 2016.
147. Borer KT, Wuorinen E. Obesity Blunts Detection of, and Compensation for, Exercise-Induced Energy Deficit. **Rachmiel Levine-Arthur Riggs Diabetes Symposium**, Long Beach, CA, March 6-9, 2016.
148. Borer KT, Wuorinen E. Obesity Blunts Detection of, and Compensation for, Exercise-Induced Energy Deficit. **Endocrine Society** Annual Meeting, Boston, MA, April 1-4, 2016.
149. Lin P-J, Borer KT. Reduced postprandial insulin resistance by exercise one hour after meal but not by pre-meal exercise. **American College of Sports Medicine**, Boston, MA, May 31-June 4, 2016.

TEACHING:

At **The University of Pennsylvania**, Philadelphia:
Comparative anatomy of the nervous system
(Teaching Assistant, 1962-1963)

At the **Anchorage Community College** and **Alaska Methodist University**, Anchorage, Alaska:

Fundamentals of biology
Comparative anatomy of vertebrates
Physiological psychology
Experimental psychology
(Lecturer, 1968-1969)

At **The University of Michigan**:

Comparative psychology (Lecturer, 1974-1977)
Physiol. and psychological bases of human movement
(1978-1981, 1992-1995)
Exercise and nutrition (1979 -present)
Topics in exercise science (1981-1995)
Physiological basis of physical activity (1982-1984)
Advanced exercise physiology (1984-1986)
Exercise physiology (1984-1996, 2001, 2005)
Research methods (1988-present)
Hormones and Exercise (1993-2011)
Exercise endocrinology (2012-present)
Exercise and human biology (1993-present)
Human movement and aging: Hormones and nutrition (1999-2011)
Aging and exercise (2012-present)
Physical activity, health and disease (2000- 2011)
Exercise epidemiology (2012-present)

At **The University of Zagreb**

Postgraduate lectures
Hormones in human performance (4 lectures, September 2004)
The effects of exercise on energy regulation (3 lectures, Sep 2008)

DOCTORAL AND MASTER'S DEGREE STUDENTS:

- 1983** **Susan Kandarian**, M.S. (Education)
"Exercise-induced reproductive and physiological changes in anestrous hamsters: The role of prolactin."
- 1984** **Tzu-Wen Gong**, M.S. (Human Nutrition Program)
"Influence of dietary protein intake on exercise and retirement effects in hamsters."
- 1985** **Susan E. MacConnie**, Ph.D. (Physical Education: Kinesiology)
"The acute and chronic effect of marathon training on the function of the hypothalamo-pituitary axis of male runners." Placement: T.B.Gilliam Enterprises, Twinsburg, OH.

Robert J. Moffatt, Ph.D. (Physical Education:Kinesiology)
"The effect of chronic exercise and retirement from chronic exercise on regulation of body energy balance of the adult female golden hamsters."
Placement:Assistant Professor, Department of Physical Education, Western Washington University, Bellingham,WA (1983-1985) and Assistant Professor, Associate Professor , Currently: Professor and Chairperson, Department of Movement Science and Physical Education, Florida State University, Tallahassee,FL.

Jeanne F. Nichols, Ph.D. (Physical Education:Kinesiology) "The effect of age and acute submaximal exercise on metabolic and hormonal characteristics of hamsters."
Placement: Assistant Professor, Associate Professor (1985), Currently: Associate Professor; Professor, Department of Exercise & Nutritional Sciences, San Diego State University, San Diego,CA.

Kim Khawand, M.S. (Physical Education: Kinesiology)
"The effects of exercise on diet-induced thermogenesis"

1993 **Carole A. Conn**, Ph.D. (Kinesiology)
"The effects of exercise and food restriction on the acute phase response."
Placement:
Research Associate, Lovelace Institute, Albuquerque, N.M. 1994-;; Assistant Professor, 2004: Associate Professor, .Department of Nutrition Education, University of New Mexico, Albuquerque, NM (1998- present);

Pamela Johnson Rowsey, Ph.D.(Kinesiology)
"Relationship of exercise-induced core temperature elevation to fever: Involvement of tumor necrosis factor, prostaglandin, and corticotropin releasing factor."
Placement: Postdoctoral Fellow, University of Michigan School of Nursing, 1994-1996; Assistant Professor, 2003:Currently: Associate Professor, School of Nursing, University of North Carolina, Chapel Hill, NC, ..

2000: **Jacqueline La New**, M.S. (Kinesiology)
"The effect of walking speed on body composition as a function of age in middle-aged and older women".
Placement: Aquatics manager, Larry R. Walkup Aquatic Center, Los Alamos, NM.

2002 **Po-Ju Lin** (M.S.)

2003 **Courtney Hughes** , M.S. (Kinesiology)
"The relationship between intraday exercise participation and dietary behavior in American adults".

Lauren Weddell, M.S. (Kinesiology)
"The influence of meals on exercise-induced energy expenditure and metabolism in postmenopausal women".

2007 **Elizabeth Wuorinen** (PhD, Kinesiology)
"Detection of exercise energy expenditure"
Placement: Assistant Professor in Physical Education, Norwich University, Northfield, Vermont.

- 2013** **Qingyun Zheng** (candidate who completed her dissertation research on “Mechanical, dietary, and hormonal parameters to prevent osteoporosis in type 2 diabetic women” in Exercise Endocrinology Laboratory for a Ph.D. degree from East China Normal University, Shanghai, PR China)
- 2015** **Po-Ju Lin** (PhD, Kinesiology)
 “Effects of repeat exercise under different prandial states and diet composition on glucoregulation and appetite”

SERVICE:

Division of Kinesiology, The University of Michigan:

Faculty Search Committees (1986, 1989, 1990, 1999 twice, 2003)
 Graduate Committee (1986-1988, 2012-2015)
 Executive Committee (1984-1987, 1988-1989, 1991-1993, 1995-1996, 1999-2002; 2004-2006)
 Gopher/Kimweb Committee (1994-1996)
 Directors Committee (1994-1996)
 Associate Director for Research (1994-1996)
 Chair, Movement Science (1990-1991, 2000-2001)
 Graduate Committee (2014-2016)

The University of Michigan:

Faculty Search Committee (Human Nutrition Program, (1982)
 Senate Assembly (1986-1988; 2009-2011)
 SACUA Student Relations Committee (1988-1990)
 Chairperson in 1989-1990
 Task Force on Diversity, Research Policies Committee (1988)
 Training Program Committee, Reproductive Endocrinology Program (1984-1985, 1988-1989)
 University Committee on Use and Care of Laboratory Animals (1989-1992)
 Library Council (1992-1995; 1996-1999)
 Minority Affairs Committee, Reproductive Sciences Program (1994-1996)
 Rackham School of Graduate Studies Divisional Board (1999-2001)
 SACUA Research Policy Committee (2001-2004)
 Chairperson 2002-2003, 2003-2004
 Cognate panel, Faculty Grievance Review Board (2004-2006)
 Chair of 1994 and 2006 grievances.
 Michigan Healthy Community Advisory Committee (and Risk Reduction and Incentives sub-committee), 2007-2010.
 Population Health Risk Improvement Committee (2009-2011)

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