

**Curriculum Vitae – Prof. Dr. Karsten Köhler**

Date of Birth: 03. September 1980 in Gießen  
Nationality: Germany  
Marital Status: Married, two children  
Website: [www.sg.tum.de/exercisenutrition](http://www.sg.tum.de/exercisenutrition)

**Personal Statement**

Having received formal training in nutrition science and exercise science, I am actively integrating these two fields in my research and teaching/mentorship approaches. My overarching goal is to improve our understanding of how exercise and physical activity impact what and how much we should eat in order to maximize human health and performance. I have more than 15 years of experience in teaching and mentoring students enrolled in exercise and nutrition programs at academic institutions in Germany and the United States.

My primary research focus is the regulation of energy balance and its implications for metabolism, health, and performance, and my laboratory is equipped to conduct well-controlled experiments related to metabolic, endocrine, and behavioral outcomes. My research has been published in high-impact journals in the fields of nutrition and exercise science, and I have served as a principle investigator and co-investigator on numerous research grants.

**Professional Experience**

Since 07/2019 **Technical University Munich**  
W2-Professorship (Tenure Track) in Exercise, Nutrition and Health

Since 05/2019 **University of Nebraska-Lincoln**  
Adjunct Assistant Professor, Sports and Exercise Nutrition

08/2015 – 05/2019 **University of Nebraska-Lincoln**  
Assistant Professor, Sports and Exercise Nutrition

05/2013 – 06/2015 **Pennsylvania State University**  
Postdoctoral Research Associate, Women's Health and Exercise Lab

04/2006 – 05/2013 **German Sport University Cologne**  
Research Assistant (until 11/2011), Postdoctoral Research Associate

**Education**

01/2007 – 11/2011 **German Sport University Cologne**  
Doctorate (Dr. rer. nat., *summa cum laude*)

10/2000 – 03/2006 **University of Hohenheim**  
Nutritional Sciences (Ernährungswissenschaften, Diplom: 1.2)

**Honors and Awards**

2020	Teaching Award, Department of Sport & Health Sciences, Technical University of Munich
2019	Outstanding Undergraduate Research Mentor, University of Nebraska-Lincoln
2015 – 2016	Research Development Fellowship, University of Nebraska-Lincoln
2013 – 2015	Postdoctoral Scholarship Award, German Academic Exchange Service
2012	Teaching Excellence Award, German Sport University, Cologne
2010 & 2012	Young Investigator Award, German Sport University, Cologne

**Advisory Board and Expert Group Memberships**

Since 2022	Scientific Advisory Board, Joint Programming Initiative ‚A Healthy Diet for a Healthy Life‘
Since 2020	Sports Nutrition Expert Group, German Nutrition Society (DGE)

**Professional Memberships**

Since 2018	American Physiological Society (APS)
Since 2015	American Society for Nutrition (ASN)
Since 2012	German Nutrition Society (DGE)
Since 2011	Female Athlete Triad Coalition
Since 2010	Professionals in Sport and Exercise Nutrition (PINES)
Since 2009	American College of Sports Medicine (ACSM)

**Editorial Activity**

Since 2019	Associate Editor for Sport and Exercise Nutrition, <i>Frontiers in Nutrition &amp; Frontiers in Sports &amp; Active Living</i>
Since 2019	Editorial Board Member, <i>Nutrients</i>
2018-2019	Guest Editor, Special issue: Integrated Role of Nutrition and Physical Activity for Lifelong Health, <i>Nutrients</i>

**University Teaching Experience** (for a detailed overview, please refer to Pages 19-21)Technical University of Munich

- Lectures in Basics of Nutrition and Hydration; Sports Nutrition; Nutrition and Health, Nutritional Research and Prevention

- Seminars: Current Topics in Sports Nutrition; Research Methods in Sports Nutrition
- Exercise Course: Nutritional Planning

University of Nebraska-Lincoln

- Lectures: Human Nutrition and Metabolism
- Seminars: Nutrition Function During Exercise; Introduction to Sports Nutrition

Pennsylvania State University

- Seminar: Nutrition, Exercise, and Performance

German Sport University Cologne

- Lectures: Basics of Nutrition
- Seminars: Nutrition and Substitution; Sport and Nutrition; Sport and Health; Health and Doping Risks of Dietary Supplements; Nutrition and Dietary Supplements in Sports; Basics of Training and Performance

**Student Supervision** (for a detailed overview, please refer to Pages 22-25)

Technical University of Munich (current as of February 2022)

- 2 Postdoctoral Researchers
- 4 Doctoral students (1 completed)
- 8 M.Sc. theses
- 9 B.Sc. theses

University of Nebraska-Lincoln

- 5 M.Sc. theses
- 6 Undergraduate Research Projects

Pennsylvania State University

- Committee member for 1 PhD student, 1 M.Sc. thesis

German Sport University Cologne

- 7 M.Sc. theses (or equivalent)
- 14 B.Sc. theses

**Academic Service**

Technical University Munich

- International Coordinator, Department of Sport and Health Sciences; since 2020 (appointed)
- Program Director, B.Sc. Sport Sciences; since 2019 (appointed)

University of Nebraska-Lincoln

- Graduate Committee, Department of Nutrition and Health Sciences; 2016-2019 (Member, elected)
- Graduate Executive Committee, College of Education and Human Sciences; 2017-2019 (Member, appointed)

- Chair Advisory Council, Department of Nutrition and Health Sciences; 2017-2019 (Member, elected)
- Advisory Board, Office of Graduate Studies; 2018-2019 (Member, appointed)
- Intercollegiate Athletes Committee; 2018-2019 (Member, appointed)

### **Other Relevant Experience and Certification**

Since 2015	Bone Densitometry Technologist (CBDT), International Society for Clinical Densitometry
2016 – 2019	Limited Radiographer (Bone Densitometry), State of Nebraska Department of Health and Human Services

**Research Funding (Awarded)**

- Olympic Training Center Bavaria (2022-2024): Nutrition for national and international elite sports (101,000 €); Role: Principal Investigator
- Robert Enke Foundation (2021-22): Relationship between Relative Energy Deficiency and Depression in Sport (31,000 €); Role: Principal Investigator
- European Institute of Technology (2020-21): Using indicators to influence consumer behaviour and prevent pre-disease through food and lifestyle-related interventions (130,000 €); Role: Principal Investigator and Consortium Partner
- Federal Institute of Sport Sciences (2020-21): Energy Balance in Alpine Skiing under Consideration of Altitude (35,000 €); Role: Principal Investigator
- Layman Seed Awards (2018-2019): Using Resistance Exercise and Protein Consumption to Protect Bone Health during Weight Loss (\$10,000); Role: Principal Investigator
- Food for Health Collaboration Initiative (2017-2019): Understanding the Effect of Exercise on Future Food Intake: The Role of Behavioral, Physiological, and Neural Mechanisms (\$150,000); Role: Principal Investigator
- Nebraska Beef Council (2017-2018): Establishing the Value of Beef in Sports Nutrition for High School Athletes (\$57,708); Role: Principal Investigator
- Abbott (2017-2018): Carbohydrates and Children (\$222,215); Role: Co-Investigator
- Nebraska Beef Council (2016-2017): Exploring the Associations among Beef Intake, Iron Status, and Athletic Performance in Nebraska Youth Athletes (\$60,125); Role: Principal Investigator
- Food for Health Collaboration Initiative (2016-2017): Understanding the Effect of Exercise on Future Food Intake: The Role of Behavioral, Physiological, and Neural Mechanisms (\$20,000); Role: Principal Investigator
- Layman Seed Awards (2016-2017): The Effect of Increased Dietary Protein on Body Protein Breakdown and Anabolic Sensitivity of Bone and Skeletal Muscle during Calorie-Restricted Weight Loss (\$9,995); Role: Principal Investigator
- Center for Childhood Obesity Research Pilot Grant (2014 -2015, declined): The Impact of Weight Loss due to Calorie Restriction on Food Intake Following Acute Exercise in Overweight Young Women: Role of Eating Behavior Phenotypes and Appetite Regulating Hormones (US\$16,066), Role: Co-Investigator
- World Anti-Doping Agency (2012): Development of urinary threshold levels for the detection of misuse of glycerol in sports (\$120,000); Role: co-Principal Investigator
- German Federal Institute of Risk Assessment (2011 – 2013): Development of a concept for the systematic health evaluation of substances with insufficient scientific data, exemplarily for substances found in dietary supplements for athletes (72,000 €); Role: co-Principal Investigator

- German Sport University Young Investigator Grant (2012): Effects of energy restriction on physical performance capacity and hormonal measures (10,000 €); Role: Principal Investigator
- German Sport University Young Investigator Grant (2010): Energy availability and relevant biochemical indices: detection of insufficient dietary energy intake in athletes (10,000 €); Role: Principal Investigator

### **Mentored Grants**

- Alexander von Humboldt Foundation Postdoctoral Research Fellowship (2022-2024): Development and validation of a multi-component, smart device-based, remote monitoring system to non-invasively assess a person's free-living physical activity and nutrition status in real-time; Granted to Dr. Christoph Höchsmann (83,200 €); Role: Host Supervisor
- Agriculture Research Division Undergraduate Student Research Program, University of Nebraska-Lincoln (2018-2019): Stable Nitrogen Isotope Ratios – A Non-Invasive Marker of Protein Breakdown during Weight Loss; Granted to Elly Glazier (\$2,500); Role: Faculty Supervisor
- Agriculture Research Division Undergraduate Student Research Program, University of Nebraska-Lincoln (2016-2017): Identification of Biological Markers of Energy Deficiency in Exercising Men; Granted to Mikayla Locke (\$2,500); Role: Faculty Supervisor

## Peer-Reviewed Publications

Full Google Scholar Profile: <https://tinyurl.com/y2d5vpxd>

#: mentored postdoc; \*mentored graduate student; †mentored undergraduate student

1. Oliveira-Junior, G., Pinto, R.S., Shirley, M.K., Longman, D.P., **Koehler, K.**, Saunders, B., Roschel, H. & Dolan, E. (2022). The Skeletal Muscle Response to Energy Deficiency: A Life History Perspective. *Adaptive Human Behavior and Physiology* (epub ahead of print).
2. **Koehler, K.** & Drenowatz, C. (2022). Editorial: Understanding the Interaction Between Physical Activity and Diet for the Promotion of Health and Fitness. *Frontiers in Nutrition* 8, 835535.
3. Murphy, C.\* & **Koehler, K.** (2022). Energy Deficiency Impairs Resistance Training Gains in Lean Mass but not Strength: A Meta-Analysis and Meta-Regression. *Scandinavian Journal of Medicine & Science in Sports*, 32, 125-137.
4. Hubner, S., Boron, J.B. & **Koehler, K.** (2021). The Effects of Exercise on Appetite in Older Adults: A Systematic Review and Meta-Analysis. *Frontiers in Nutrition*. *Frontiers in Nutrition*, 8, 920
5. Wasserfurth, P. #, Nebl, J., Rühling, M.R., Shammas, H., Bednarczyk, J., **Koehler, K.**, Boßlau, T.K., Krüger, K., Hahn, A. & Das, A.M. (2021). Impact of Dietary Modifications on Plasma Sirtuins 1, 3 and 5 in Older Overweight Individuals Undergoing 12-Weeks of Circuit Training. *Nutrients*, 13, 3824.
6. Martin, A.\* , Hofmann, H., Drenowatz, C., Wallmann-Sperlich, B., Sperlich, B. & **Koehler, K.** (2021). The Impact of Low Energy Availability on Nonexercise Activity Thermogenesis and Physical Activity Behavior in Recreationally Trained Adults. *International Journal of Sports Nutrition and Exercise Metabolism*, 31, 329-336.
7. Murphy, C.\* , Takahashi, S., Bovaird, J. & **Koehler, K.** (2021). Relation of Aerobic Fitness, Eating Behavior and Physical Activity to Body Composition in College-Age Women: A Path Analysis. *Journal of American College Health*, 69, 30-37
8. Murphy, C.\* , Bilek, L.D. & **Koehler, K.** (2021) Low Energy Availability with and without a High-Protein Diet Suppresses Bone Formation and Increases Bone Resorption in Men: A Randomized Controlled Pilot Study. *Nutrients*, 13, 802.
9. **Koehler, K.**, Beckford, S.E.\* , Thayer, E., Martin, A.R.\* , Boron, J.B. & Stevens, J.R. (2021). Exercise Shifts Hypothetical Food Choices toward Greater Amounts and More Immediate Consumption. *Nutrients*, 13, 347
10. Areta, J.L., Taylor, H.L. & **Koehler, K.** (2020). Low energy availability: history, definition and evidence of its endocrine, metabolic and physiological effects in prospective studies in females and males – Invited Review. *European Journal of Applied Physiology*, 121, 1-21
11. Martin, A.R.\* , Chung, S. & **Koehler, K.** (2020). Is exercise a match for cold exposure? Common molecular framework for adipose tissue browning. *International Journal of Sports Medicine*, 41, 427-442
12. Murphy, C.\* & **Koehler, K.** (2020). Caloric restriction induces anabolic resistance to resistance exercise. *European Journal of Applied Physiology*, 120, 1155-1164
13. **Koehler, K.**, Marks-Nelson, E., Braga, C.P., Beckford, S.E.\* & Adamec, J. (2020). Validity of Plasma Collection Cards for Ferritin Assessment – a Proof-of-Concept Study. *European Journal of Haematology*, 104, 554-561
14. Düking, P., Holmberg, H., Frenkel, M.O., Giessing, L., **Köhler, K.**, Sperlich, B. (2020). Assessment of the validity of four commercially available wrist-worn wearables for monitoring heart rate and energy expenditure while sitting or performing light-to-vigorous physical activity. *JMIR mHealth and uHealth*, 8, e16716

15. **Koehler, K.** (2020). Energy Deficiency and Nutrition in Endurance Sports – Focus on Rowing. *German Journal of Sports Medicine (Deutsche Zeitschrift für Sportmedizin)*, 71, 5-10
16. Shoemaker, M.E., Gillen, Z.M., McKay, B.D., Cramer, J.T. & **Koehler, K.** (2020). High Prevalence of Poor Iron Status Among 8- to 16-Year-Old Youth Athletes: Interactions Among Biomarkers of Iron, Dietary Intakes, and Biological Maturity. *Journal of the American College of Nutrition*, 39, 115-162
17. Neta, M., Harp, N.R., Henley, D.J., Beckford, S.E.\* & **Koehler, K.** (2019) One step at a time: Physical activity is linked to positive interpretations of ambiguity. *PLOS ONE* 14(11): e0225106
18. Shoemaker, M.E., Gillen, Z.M., McKay, B.D., Bohannon, N.A., Gibson, S.M., **Koehler, K.** & Cramer, J.T. (2019). Sex-specific relationships among iron status biomarkers, athletic performance, maturity, and dietary intakes in pre-adolescent and adolescent athletes. *Journal of the International Society of Sports Nutrition*, 16, 42
19. Shoemaker, M.E., Gillen, Z.M., McKay, B.D., Fischer, J.A., Hansen, C.\*, Bohannon, N.A., Gibson, S.M., **Koehler, K.** & Cramer, J.T. (2019) Effects of Sports Nutrition Education on Athletic Performance and Iron Status in High School-Aged Youth Athletes. *Journal of Clinical Nutrition and Food Science*, 2, 10-18
20. **Koehler, K.** & Drenowatz, C. (2019). Integrated Role of Nutrition and Physical Activity for Lifelong Health (Editorial). *Nutrients*, 11, 1437
21. **Koehler, K.**, Boron, J.B., Garvin, T.M. Bice, M.R. & Stevens, J.R. (2019). Differential relationship between physical activity and intake of added sugar and nutrient-dense foods: A cross-sectional analysis. *Appetite*, 140, 91-97
22. Fan, R., **Koehler, K.** & Chung S. (2019). Adaptive thermogenesis by dietary n-3 polyunsaturated fatty acids: Emerging evidence and mechanisms. *Biochimica Biophysica Acta*, 1864, 59-70.
23. Gustafson, C., Rakhmatullaeva, N., Beckford, S.E.\*, Ammachathram, A., Cristobal, A.† & **Koehler, K.** (2018). Exercise and the Timing of Snack Choice: Healthy Snack Choice is Reduced in the Post-Exercise State. *Nutrients*, 10, 1941.
24. Dinkel, D., Hanson, C., **Koehler, K.**, Berry, A. A., Kyvelidou, A., Bice, M., Wallen, J., Bagenda D, Jana, L. & Pressler, J. (2018). An overview of assessment methodology for obesity-related variables in infants at risk. *Nutrition & Health*, 24, 47-59.
25. **Koehler, K.** & Drenowatz, C. (2017). Monitoring Energy Expenditure Using a Multi-Sensor Device – Applications and Limitations in Athletic Populations. *Frontiers in Physiology*, 8, 983.
26. Murphy, C.A.\*, **Koehler, K.** (2017). Modulating Weight Loss and Regain through Exercise and Dietary Protein. *Diabetes*, 3, 13-17.
27. Geesmann, B.\*, Gibbs, J. C., Mester, J. & **Koehler, K.** (2017). Association Between Energy Balance and Metabolic Hormone Suppression During Ultra-Endurance Exercise. *International Journal of Sports Physiology and Performance*, 12, 984-989.
28. Hülsemann, F., **Koehler, K.**, Wittsiepe, J., Wilhelm, M., Hilbig, A., Kersting, M., Braun, H., Flenker, U. & Schänzer, W. (2017). Prediction of human dietary  $\delta^{15}\text{N}$  intake from standardised food records: validity and precision of single meal and 24-h diet data. *Isotopes in Environmental & Health Studies*, 53, 356-367.
29. Hülsemann, F., **Koehler, K.**, Flenker, U., Schaenzer, W. (2017). Do we excrete what we eat? Analysis of stable nitrogen isotope ratios of human urinary urea. *Rapid Communications in Mass Spectrometry*, 31, 1221-1227.
30. Okla, M., Kim, J., **Koehler, K.** & Chung, S. (2017). Dietary Factors Promoting Brown and Beige Fat Development and Thermogenesis. *Advances in Nutrition*, 8, 473-483
31. Hoerner, N.R.\*, Domnik, K., **Koehler, K.**, Braun, H., Schaenzer, W. (2017). Case study: Hydration intervention improves pre-game hydration status in female collegiate soccer players. *International Journal of Sport Nutrition and Exercise Metabolism*, 27, 475-481.



32. **Koehler, K.**, De Souza, M. J. & Williams, N. I. (2017). Less-than-expected weight loss in normal-weight women undergoing caloric restriction and exercise is accompanied by preservation of fat-free mass and metabolic adaptations. *European Journal of Clinical Nutrition*, 71, 365-371.
33. Scott, S.P., De Souza, M. J., **Koehler, K.** & Murray-Kolb, L.E. (2017). Combined Iron Deficiency and Low Aerobic Fitness Doubly Burden Academic Performance among Women Attending University. *Journal of Nutrition*, 147, 104-109.
34. **Koehler, K.**, Williams, N. I., Mallinson, R. J., Southmayd, E.A., Allaway, H.C. & De Souza, M. J. (2016). Low resting metabolic rate in exercise-associated amenorrhea is not due to a reduced proportion of highly metabolically active tissue compartments. *American Journal of Physiology – Endocrinology and Metabolism*, 311, E480-E487.
35. Scott, S.P., De Souza, M.J., **Koehler, K.**, Petkus, D.L. & Murray-Kolb, L.E. (2016). Cardiorespiratory fitness is associated with better executive performance in healthy young women. *Medicine & Science in Sports & Exercise*, 48, 1994-2002
36. **Koehler, K.**, Hoerner, N.R.†, Gibbs, J.C., Zinner, C., Braun, H., De Souza, M.J. & Schaenzer, W. (2016). Low Energy Availability in Exercising Men is Associated with Reduced Leptin and Insulin but Not with Changes in Other Metabolic Hormones. *Journal of Sports Sciences*, 34, 1921-1929.
37. Mallinson, R.J., Williams, N.I., Gibbs, J.C., **Koehler, K.**, Allaway, H.C.M., Southmayd, E. & De Souza, M.J. (2016). Current and past menstrual status is an important determinant of femoral neck geometry in exercising women. *Bone*, 88, 101-112.
38. Sareban, M., Zügel, D., **Koehler, K.**, Hartveg, P., Zügel, M., Schumann, U., Steinacker, J.M. & Treff, G. (2016). Carbohydrate Intake in Form of Gel is Associated With Increased Gastrointestinal Distress but Not With Performance Differences When Compared to Liquid Carbohydrate Ingestion During Simulated Long-Distance Triathlon. *International journal of sport nutrition and exercise metabolism*, 26, 114-122.
39. Allaway, H.C., Williams, N.I., Mallinson, R.J., **Koehler, K.** & De Souza, M.J. (2015). Reductions in urinary collection frequency for assessment of reproductive hormones provide physiologically representative exposure and mean concentrations when compared with daily collection. *American Journal of Human Biology*, 27, 358-371.
40. De Souza, M.J., Williams, N.I., Nattiv, A., Joy, E., Misra, M., Loucks, A.B., Matheson, G., Olmsted, M.P., Barrack, M., Mallinson, R.J., Gibbs, J.C., Goolsby, M., Nichols, J.F., Drinkwater, B., Sanborn, C.B., Agostini, R., Otis, C.L., Johnson, M.D., Hoch, A.Z., Alleyne, J.M.K., Wadsworth, T.L., **Koehler, K.**, VanHeest, J., Harvey, P., Weiss Kelly, A., Fredericson, M., Brooks, G.A., O'Donnell, E., Callahan, L.R., Putukian, M., Costello, L., Hecht, S., Rauh, M.J. & McComb, J. (2014). Misunderstanding the Female Athlete Triad: Refuting the IOC Consensus Statement on Relative Energy Deficiency in Sport (RED-S). *British journal of sports medicine*, 48, 1461-1465.
41. **Koehler, K.**, Abel, T., Wallmann-Sperlich, B., Dreuscher, A. & Anneken, V. (2015). Energy Expenditure in Adolescents with Cerebral Palsy: Comparison of the Sensewear Armband and Indirect Calorimetry. *Journal of Physical Activity & Health*, 12, 540-545.
42. Geesmann, B.\*, Mester, J. & **Koehler, K.** (2014). Energy Balance, Macronutrient Intake and Hydration Status during a 1,230-km Ultra-Endurance Bike Marathon. *International Journal of Sport Nutrition and Exercise Metabolism*, 24, 497-506.
43. **Koehler, K.**, Braun, H., de Marees, M., Geyer, H., Thevis, M., Mester, J. & Schaenzer, W. (2014). Glycerol administration before endurance exercise: metabolism, urinary glycerol excretion and effects on doping-relevant blood parameters. *Drug Testing and Analysis*, 6, 202-209.
44. Huelsemann, F., **Koehler, K.**, Braun, H., Schaenzer, W. & Flenker, U. (2013). Human dietary  $\delta(15)\text{N}$  intake: representative data for principle food items. *American Journal of Physical Anthropology*, 152, 58-66.

45. Wahl, P., Mathes, S., **Köhler, K.**, Achtzehn, S., Bloch, W. & Mester, J. (2013). Effects of active vs. passive recovery during Wingate-based training on the acute hormonal, metabolic and psychological response. *Growth Hormone & IGF Research*, 23, 201-208.
46. **Koehler, K.**, Thevis, M. & Schaenzer, W. (2013). Meta-analysis: Effects of Glycerol Administration on Plasma Volume, Haemoglobin, and Haematocrit. *Drug Testing and Analysis*, 5, 896-899.
47. **Koehler, K.**, Achtzehn, S., Braun, H., Mester, J. & Schaenzer, W. (2013). Comparison of Self-Reported Energy Availability and Metabolic Hormones to Assess Adequacy of Dietary Energy Intake in Young Elite Athletes. *Applied Physiology, Nutrition, and Metabolism*, 38, 725–733.
48. **Koehler, K.**, Marees, M. de, Braun, H. & Schaenzer, W. (2013). Evaluation of two portable sensors for energy expenditure assessment during high-intensity running. *European Journal of Sport Science*, 13, 31-41.
49. Wahl, P., Mathes, S., **Köhler, K.**, Achtzehn, S., Bloch, W. & Mester, J. (2013). Acute Metabolic, Hormonal, and Psychological Responses to Different Endurance Training Protocols. *Hormone and Metabolic Research*, 45, 827-833.
50. Franzki, R.† Braun, H., Schänzer, W. & **Köhler, K.** (2013). Eating disorders in sports: Comparison of sport students and non-sport students using the eating disorder inventory-2. *Aktuelle Ernährungsmedizin*, 38, 283-289
51. Jakob, E., Braun, H., **Köhler, K.**, Bönnhoff, N. & Schwarzfischer, C. (2013) Nutritional requirement in sports-Which effects are positive, which negative? *Klinikarzt*, 42, 421-425.
52. Polyviou, T.P., Easton, C., Beis, L., Malkova, D., Takas, P., Hambly, C., Speakman, J.R., **Koehler, K.** & Pitsiladis Y.P. (2012). Effects of Glycerol and Creatine Hyperhydration on Doping-Relevant Blood Parameters. *Nutrients*, 4, 1171-1186.
53. **Koehler, K.**, Braun, H., Achtzehn, S., Hildebrand, U., Predel, H.-G., Mester, J. & Schänzer, W. (2012). Iron status in elite young athletes: gender-dependent influences of diet and exercise. *European journal of applied physiology*, 112, 513-523.
54. **Koehler, K.**, Braun, H., De Marees, M., Fusch, G., Fusch, C. & Schaenzer, W. (2011). Assessing energy expenditure in male endurance athletes: validity of the SenseWear Armband. *Medicine and science in sports and exercise*, 43, 1328–1333.
55. **Koehler, K.**, Huelsemann, F., Marees, M. de, Braunstein, B., Braun, H. & Schaenzer, W. (2011). Case study: simulated and real-life energy expenditure during a 3-week expedition. *International journal of sport nutrition and exercise metabolism*, 21, 520–526.
56. **Koehler, K.**, Braun, H., Marees, M., Geyer, H., Thevis, M., Mester, J. & Schaenzer, W. (2011). Urinary excretion of exogenous glycerol administration at rest. *Drug testing and analysis*, 3, 877-82.
57. **Koehler, K.**, Braun, H. & Schänzer, W. (2011). Einsatz von Nahrungsergänzungsmitteln im Sport. *Leistungssport*, 5, 47–48.
58. Sperlich, B., De Marees, M., **Koehler, K.**, Linville, J., Holmberg, H.C. & Mester, J. (2011). Effects of 5 weeks of high-intensity interval training vs. volume training in 14-year-old soccer players. *Journal of strength and conditioning research*, 25, 1271–1278.
59. Sperlich, B., **Koehler, K.**, Holmberg, H.C., Zinner, C. & Mester, J. (2011). Table tennis: cardiorespiratory and metabolic analysis of match and exercise in elite junior national players. *International journal of sports physiology and performance*, 6, 234–242.
60. Braun, H., **Köhler, K.**, Geyer, H. & Schänzer, W. (2011). Nahrungsergänzungsmittel: Doping- und Gesundheitsgefahren. *E&M - Ernährung und Medizin*, 26, 174–178.
61. **Koehler, K.**, Braun, H., Marees, M. de, Fusch, G., Fusch, C., Mester, J. & Schaenzer, W. (2010). Parallel assessment of nutrition and activity in athletes: validation against doubly labelled water, 24-h urea excretion, and indirect calorimetry. *Journal of sports sciences*, 28, 1435–1449.

62. Braun, H., **Koehler, K.** & Geyer, H. (2010). Verunreinigungen von Nahrungssupplementen - eine Quelle verbotener Substanzen? Schweizer Zeitschrift für Ernährungsmedizin, 4, 18–21.
63. **Koehler, K.**, Parr, M. K., Geyer, H., Mester, J. & Schänzer, W. (2009). Serum testosterone and urinary excretion of steroid hormone metabolites after administration of a high-dose zinc supplement. European journal of clinical nutrition, 63, 65–70.
64. Braun, H., **Koehler, K.**, Geyer, H., Kleinert, J., Mester, J. & Schänzer, W. (2009). Dietary supplement use among elite young German athletes. International journal of sport nutrition and exercise metabolism, 19, 97–109.
65. Hülsemann, F., Flenker, U., **Koehler, K.** & Schänzer, W. (2009). Effect of a controlled dietary change on carbon and nitrogen stable isotope ratios of human hair. Rapid communications in mass spectrometry, 23, 2448–2454.
66. Braun, H., Geyer, H. & **Koehler, K.** (2008). Meat products as potential doping traps? International journal of sport nutrition and exercise metabolism, 18, 539–542.
67. Geyer, H., Parr, M. K., **Koehler, K.**, Mareck, U., Schänzer, W. & Thevis, M. (2008). Nutritional supplements cross-contaminated and faked with doping substances. Journal of mass spectrometry, 43, 892–902.
68. Parr, M. K., **Koehler, K.**, Geyer, H., Guddat, S. & Schänzer, W. (2008). Clenbuterol marketed as dietary supplement. Biomedical chromatography, 22, 298–300.
69. Parr, M. K., Geyer, H., Hoffmann, B., **Köhler, K.**, Mareck, U. & Schänzer, W. (2007). High amounts of 17-methylated anabolic-androgenic steroids in effervescent tablets on the dietary supplement market. Biomedical chromatography, 21, 164–168.
70. Machnik, M., Löhlein, W., Schrader, Y., **Köhler, K.**, Freymark, J. & Schänzer, W. (2007). Behandlung von Sportpferden mit Corticosteroiden: Nachweiszeiten von Flumethason und Betamethason beim Pferd nach i.v. Applikation von Actuol und i.a. Applikation von Celestovet. Pferdeheilkunde, 23, 476–480.

### Book Chapters

1. **Koehler, K.**, Geesmann, B. (2019). Nutrition for Ultraendurance Exercise. In: D. Bagchi, S. Nair, C. Sen (Eds.), Nutrition and Enhanced Sports Performance, 2nd ed, pp 521-531. San Diego: Elsevier
2. **Koehler, K.** (2016). The Role of Dietary Supplements in Sports Nutrition. In S. S. Gropper, J. L. Smith & T. P. Carr, Advanced Nutrition and Human Metabolism, 7th ed, pp. 217-272. Boston: Cengage Learning
3. Hülsemann, F., **Koehler, K.** & Flenker, U. (2016) Effects of heavy exercise and restricted diet regimes on nitrogen balance and body mass. In J. Lee-Thorpe & M. A. Katzenberger (Eds.), The Oxford Handbook of the Archaeology of Diet, Oxford: Oxford University Press
4. **Koehler, K.** (2016). Nutrition for Marathon Running. In C. Zinner & B. Sperlich (Eds.), Marathon Running: Physiology, Psychology, Nutrition and Training Aspects, pp. 47-67. Zug: Springer
5. **Köhler, K.** & Schänzer, W. (2011). Nahrungsergänzungsmittel. In C. Graf & R. Rost (Eds.), Lehrbuch Sportmedizin. Basiswissen, präventive, therapeutische und besondere Aspekte, 2nd ed., pp. 189–196). Köln: Deutscher Ärzte-Verlag [German]

### Conference Presentations

1. Höchsmann, C.<sup>#</sup>, Beckford, S.E., French, J.A., Boron, J.B., Stevens, J.R. & **Koehler, K.** Predictors of post-exercise energy intake differ between men and women. 59th Annual Congress of the German Nutrition Society (online).
2. Busam, E.\* , Kirchner, K.\* , Engel, H.\* , Martin, A.\* , Hofmann, H., **Köhler, K.** & Wasserfurth, P.<sup>#</sup> (2022). Bewertung des Risikos eines relativen Energiemangels bei LangdistanztriathletInnen in der Wettkampfvorbereitung. 59th Annual Congress of the German Nutrition Society (online).
3. Flueck, J.L. & **Koehler, K.** (2021). Case study: Improving energy status in a wheelchair athlete with suppressed resting energy expenditure. VISTA Conference, International Paralympic Committee (online).
4. Soeder, J.\* , Geesmann, B. & **Koehler, K.** (2021). Changes in Body Composition over a Competitive Season Predict Improvements in Running and Cycling Performance in Triathletes. 26th Annual Meeting of the European College of Sport Science (online).
5. Martin, A.\* , Engel, H.\* , Hofmann, H., Morell, M.†, Wimbauer, F., Halle, M. & **Koehler, K.** (2021). Changes in Body Composition and Resting Metabolic Rate Over the Course of a Competitive Season in Elite Alpine Skiers. 26th Annual Meeting of the European College of Sport Science (online).
6. Engel, H.\* , Martin, A.\* , Hofmann, H., Morell, M.†, Wimbauer, F., Halle, M. & **Koehler, K.** (2021). Changes in Body Composition, Resting Metabolic Rate and Central Blood Markers During a Short-Term Training Camp at Altitude in Elite Alpine Skiers. 26th Annual Meeting of the European College of Sport Science (online).
7. Minth, A.\* , Hofmann, H., **Köhler, K.** (2021). Impact of different exercise intensities on prospective food intake. Sports, Medicine and Health Summit; Hamburg, Germany.
8. Murphy, C.\* & **Koehler, K.** (2020). Caloric restriction induces anabolic resistance to resistance exercise 2. Fitnesswissenschaftskongress; Düsseldorf, Germany.
9. Beckford, S.E.\* , Thayer, E., Hubner, S., Kim, H.J., Martin, A.R.\* , Cristobal, A.†, Boron, J.B., Stevens, J.R., **Koehler, K.** (2019). Exercise Shifts Food Choices towards Greater and More Immediate Food Consumption. Current Developments in Nutrition, 3 (S1), nzz050.OR08-05-19
10. Martin, A.R.\* , Wallmann-Sperlich, B., Sperlich, B., **Koehler, K.** (2019). The Impact of Prescribed Exercise and Short-Term Caloric Restriction on Moderate-to-Vigorous Physical Activity. Annual Meeting of the American Society for Nutrition; Baltimore, MD, June 2019
11. Vencil, N.\* , Gregory, C.\* , Martin, A.R.\* , Bach, C., **Koehler, K.** (2019). Utilization of Dual Energy X-Ray Absorptiometry to Improve the Accuracy of Resting Metabolic Rate Predictions. Annual Meeting of the Nebraska Academy of Nutrition and Dietetics; Lincoln, NE, April 2019
12. Fox, D.M.†, Martin, A.R.\* , Murphy, C.A.\* , **Koehler, K.** (2019). Contribution of Changes in Body Composition and Adaptive Thermogenesis to the Decline in Resting Metabolic Rate During Prolonged Calorie-Restricted Weight Loss. The FASEB Journal, 33 (1S), 699.2
13. Murphy, C.A.\* , Marks-Nelson, E.S., **Koehler, K.** (2019). Increased Protein Intake Prevents Elevations in Sclerostin during Short-Term Diet- and Exercise-Induced Weight Loss. The FASEB Journal, 33 (1S), 702.1
14. **Koehler, K.** (2019). Energy Balance and Nutrition in Elite Sports – Insights into Metabolic Adaptations and Implications for Practice. Biannual Meeting of the German Society for Sport Sciences, Division of Exercise Science & Training, Wurzburg, Germany, February 2019
15. Murphy, C.A.\* , Bovaird, J., Takahashi, S., Fischer, J.A., Cooney, D., Cernjul, M., **Koehler, K.** (2018). Relationship between Body Composition and Health Behaviors in High and Low Fit College Women. Annual Meeting of the American College of Sport Medicine; Minneapolis, MN, June 2018.

16. Shoemaker, M., Gillen, Z., McKay, B., **Koehler, K.**, Cramer, J. (2018). Iron Status in Adolescent Athletes: Influences of Gender and Sport. Annual Meeting of the National Strength Conditioning Association; Indianapolis, IN, July 2018.
17. Martin, A.R.\* , Smith, B.†, Chung, S., **Koehler, K.** (2018). Acute Mild Cold Exposure Induces a Measurable Increase in Energy Expenditure in Normal Weight and Overweight/Obese Individuals through Non-Shivering Thermogenesis. Annual Meeting of the American Society for Nutrition; Boston, MA, June 2018.
18. Murphy, C.M.\* , Glazier, E.†, Petersen, J.\* , **Koehler, K.** (2018). Daily Exercise Combined with a High-Protein Diet Promotes Fat Loss and Improves Fatty Acid Oxidation during Short-Term Caloric Restriction. Annual Meeting of the American Society for Nutrition; Boston, MA, June 2018.
19. Gregory, C.\* , Martin, A.R.\* , Bach, C., Remmers, L., Ransone, J., **Koehler, K.** (2018). Metabolic Mapping: Using muscle and organ mass to more accurately predict RMR in athletes. Annual Sports, Cardiovascular and Wellness Nutrition Symposium; Keystone, CO, April 2018.
20. Beckford, S.\* , Stevens, J., **Koehler, K.** (2018). Association between habitual exercise and food choices. Fulbright Global Health Innovations Seminar; Atlanta, GA, March 2018
21. Petersen, J.\* , Locke, M.†, Gregory, C.\* , Martin, A.\* , Murphy, C.\* , **Koehler, K.** (2017). Metabolic and Behavioral Correlates of Low Energy Availability in Exercising Men. Annual Meeting of the American College of Sport Medicine; Denver, CO, June 2017.
22. **Koehler, K.**, Boron, J.B., Smith, T., Pinard, C., Lee, J.M., Bice, M.R., Stevens, J. (2017). Differential Relationship between Habitual Physical Activity and Consumption of Key Dietary Factors. Annual Meeting of the American College of Sport Medicine; Denver, CO, June 2017.
23. **Koehler, K.**, Beckford, S.\* , Stevens, J. (2017). High Amounts of Exercise are Associated with an Increased Preference for High-Fat vs. Low-Fat Food Choices. The FASEB Journal, 31, lb372.
24. **Koehler, K.**, Geyer, H., Schultze, G., Parr, M., Guddat, S., Braun, H., Mareck, U., Thevis, M., Schänzer, W. (2017). Nutritional Supplements: Still a Risk of Inadvertent Doping? An Extended International Follow-up. Manfred Donike Workshop 2017 on Doping Analysis, German Sport University Cologne, Germany; March 2017
25. Mallinson, R.J., Williams, N.I., Gibbs, J.C., **Koehler, K.**, Allaway, H.C., Southmayd, E., De Souza, M.J. (2016). Cumulative menstrual status is an important determinant of femoral neck geometry in exercising women. Annual Meeting of the American College of Sport Medicine; Boston, MA, June 2016.
26. Petersen, J.\* , Braun, H., Zinner, C., **Koehler, K.** (2016). Exercise Preserves Fat-Free Mass, Submaximal Performance, and Well-Being during Short-term Energy Deficiency. Annual Meeting of the American College of Sport Medicine; Boston, MA, June 2016.
27. Allaway, H.C., Williams, N.I., **Koehler, K.**, Mallinson, R.J., Southmayd, E., De Souza, M.J. (2016). Low Resting Metabolic Rate in Exercise-Associated Amenorrhea is not Due to a Reduced Proportion of Energetically Expensive Tissue Compartments. Annual Meeting of the American College of Sport Medicine; Boston, MA, June 2016.
28. **Koehler, K.**, Flenker, U., Schaenzer, W., Huelsemann, F. (2016). Energy Deficiency, but not Aerobic Exercise, is Associated with Increased Stable Nitrogen Isotope Ratio of Urinary Urea. Experimental Biology/American Society for Nutrition; San Diego, CA, April 2016.
29. Hoerner, N.R.\* , Domnik, K., Braun, H., **Koehler, K.**, Schaenzer, W. (2015). Hydration intervention in young female soccer athletes to prevent dehydration. 12th FENS European Nutrition Conference; Berlin, October 2015
30. **Koehler, K.**, Williams, N.I., Mallinson, R.J., Southmayd, E. & De Souza, M.J. (2015). Is the Suppression of Resting Metabolic Rate in Exercise-Associated Amenorrhea Due to

- Differences in the Size of Metabolic Tissue Compartments? Annual Meeting of the Endocrine Society; San Diego, CA; Mar 5-8 2015
31. **Koehler, K.**, Mallinson, R.J., Allaway, H.C., Williams, N.I. & De Souza (2014). High Body Dissatisfaction is Associated with Low Self-Reported Energy Availability and Reduced Aerobic Fitness but not with Metabolic Alterations in Young, Exercising Women. 19th Annual Congress of the European College of Sport Sciences in Amsterdam, The Netherlands, July 2-5, 2014
  32. **Koehler, K.**, De Souza, M.J. & Williams, N.I. (2014). Predictors of Weight Loss During a Controlled Diet and Exercise Intervention in Normal-Weight Women. Annual Meeting of the American College of Sport Medicine; Orlando, FL; May 27-31 2014
  33. Geesmann, B.\* , Gibbs, J.C., Mester, J. & **Koehler, K.** (2014). A 1,230-km Bike Marathon is Associated with Alterations in Key Metabolic Hormones and Metabolites. Annual Meeting of the American College of Sport Medicine in Orlando, FL, May 27-31, 2014
  34. **Koehler, K.**, De Souza, M.J. & Williams, N. (2014). Varying Levels of Energy Deficit Induce Similar Weight Loss but Different Hormonal Responses in Women Undertaking a 3-Month Exercise Intervention. *International Journal of Sport Nutrition and Exercise Metabolism*, 24, S3.
  35. Hoerner, N.R.\* , Braun, H., Schaenzer, W. & **Koehler, K.** (2014). Nutrient Density in Athletes: Adjusting Nutrient Intake to Energy Intake. *International Journal of Sport Nutrition and Exercise Metabolism*, 24, S7
  36. Hoerner, N.R.\* , Braun, H., Schänzer, W. & **Köhler, K.** (2013). The effect of energy restriction on exercise-induced release of hormone and metabolites. *Proceedings of the German Nutrition Society*, 18, 82.
  37. **Koehler, K.**, Olivar, R.\* , Wallmann, B., Sperlich, B. & Mester, J. (2012). Underestimation of energy expenditure with the sensewear armband during uphill and level treadmill exercise. In R. Meeusen, J. Duchateau, B. Roelands, M. Klass, B. De Geus, S. Baudry & E. Tsolakidis (Eds.). 17th annual congress of the European College of Sport Sciences, Book of abstracts (p. 649). Bruges, Belgium.
  38. **Koehler, K.**, Pilger, N.\* , Zinner, C., Braun, H., Mester, J. & Schänzer, W. (2012). Einfluss einer Energierestriktion und Training auf ausgewählte Parameter der Leistungsfähigkeit. *Deutsche Zeitschrift für Sportmedizin*, 63, 234.
  39. **Koehler, K.**, Pilger, N.\* , Zinner, C., Braun, H., Kleinert, J., Mester, J. & Schaenzer, W. (2012). Effects of short-term energy restriction with and without training on physiological and psychological measures of performance. In R. Meeusen, J. Duchateau, B. Roelands, M. Klass, B. De Geus, S. Baudry & E. Tsolakidis (Eds.). 17th annual congress of the European College of Sport Sciences, Book of abstracts (p. 90). Bruges, Belgium.
  40. **Koehler, K.**, Settner, K.\* , Braun, H., Achtzehn, S., Mester, J. & Schaenzer, W. (2012). Association Between Energy Availability And Serum IGF1, T3, Leptin And Insulin In Young Female Athletes. *Medicine and Science in Sports and Exercise*, 44, S78.
  41. Braun, H., **Koehler, K.**, Geyer, H., Mester, J., Thevis, M. & Schänzer, W. (2012). Nahrungsergänzungsmittelkonsum, Einfluß auf die Mikronährstoffzufuhr bei Nachwuchsleistungs-sportlern. *Deutsche Zeitschrift für Sportmedizin*, 63, 237.
  42. Braun, H., **Koehler, K.**, Geyer, H., Mester, J., Thevis, M. & Schaenzer, W. (2012). Dietary supplement use, impact on micronutrient intake of young German athletes. In R. Meeusen, J. Duchateau, B. Roelands, M. Klass, B. De Geus, S. Baudry & E. Tsolakidis (Eds.). 17th annual congress of the European College of Sport Sciences, Book of abstracts (p. 237). Bruges, Belgium
  43. Geesmann, B.\* , Kramer, F.†, **Koehler, K.** & Mester, J. (2012). Energy balance and food sources during an ultraendurance cycling event. In R. Meeusen, J. Duchateau, B. Roelands, M. Klass, B. De Geus, S. Baudry & E. Tsolakidis (Eds.). 17th annual congress of the European College of Sport Sciences, Book of abstracts (p. 89-90). Bruges, Belgium.

44. Kilian, Y., **Koehler, K.**, Wahl, P., Zinner, C., Sperlich, B. & Mester, J. (2012). Comparison of different methods for estimating total energy expenditure for brief bouts of high intensity intervals. In R. Meeusen, J. Duchateau, B. Roelands, M. Klass, B. De Geus, S. Baudry & E. Tsolakidis (Eds.). 17th annual congress of the European College of Sport Sciences, Book of abstracts (p. 590). Bruges, Belgium.
45. Pilger, N.\*, **Koehler, K.**, Zinner, C., Braun, H., Mester, J. & Schaenzer, W. (2012). Acute effects of energy restriction during endurance training on physical performance. In R. Meeusen, J. Duchateau, B. Roelands, M. Klass, B. De Geus, S. Baudry & E. Tsolakidis (Eds.). 17th annual congress of the European College of Sport Sciences, Book of abstracts (p. 360). Bruges, Belgium.
46. **Koehler, K.**, Braun, H., de Marées, M., Geyer, H., Thevis, M., Mester, J. & Schaenzer, W. (2011). Urinary excretion of exogenous glycerol administered before endurance exercise. *Medicine and science in sports and exercise*, 45, S591-S592.
47. Braun, H., **Koehler, K.**, Mester, J., Thevis, M. & Schaenzer, W. (2011). Micronutrient intake of young elite German athletes. In N. T. Cable & K. George (Eds.), *Book of Abstracts of the 16th Annual Congress of the European College of Sport Science in Liverpool, United Kingdom from 6-9 July 2011.* (pp. 295–296).
48. Geesmann, B.†, Wonneberger, M., Weber, S. & **Koehler, K.** (2011). The effect of vitamin C supplementation on the aerobic performance. In N. T. Cable & K. George (Eds.), *Book of Abstracts of the 16th Annual Congress of the European College of Sport Science in Liverpool, United Kingdom from 6-9 July 2011.* (pp. 111–112).
49. **Koehler, K.**, de Marées, M., Braun, H. & Schaenzer, W. (2010). Comparison of two portable devices for assessing energy expenditure during high-intensity running. *Medicine and science in sports and exercise*, 42, S304-S305.
50. Frese, S., **Koehler, K.**, Looser, P., Schiffer, T., Wahl, P. & Bloch, W. (2010). Monitoring of junior competitive cyclists over the competition period reveals a load-dependent slow to fast phenotype fiber shift decreasing cycling efficiency. *Acta physiologica (Oxford, England)*, 198 (Supplement 677), 80.
51. **Koehler, K.**, Braun, H., Achtzehn, S., Predel, H. G., Mester, J. & Schaenzer, W. (2009). Iron status in young elite athletes: influence of diet, exercise and gender. In S. Loland, K. Bø, K. Fasting, J. Hallén, Y. Ommundsen, G. Roberts & E. Tsolakidis (Eds.), *14th annual Congress of the European College of Sport Science - Book of Abstracts* (p. 259). Gamlebyen Grafiske, Norway.
52. **Koehler, K.**, Huelsemann, F., deMarees, M., Braun, H., Mester, J. & Schaenzer, W. (2009). Nutrition strategies for a 3-week solo dessert crossing: a case study. In S. Loland, K. Bø, K. Fasting, J. Hallén, Y. Ommundsen, G. Roberts & E. Tsolakidis (Eds.), *14th annual Congress of the European College of Sport Science - Book of Abstracts* (p. 576). Gamlebyen Grafiske, Norway.
53. Braun, H., **Koehler, K.**, Achtzehn, S., Predel, H.-G., Thevis, M. & Schaenzer, W. (2009). Magnesium - dietary intake, supplement use and serum concentrations in elite young German athletes. In S. Loland, K. Bø, K. Fasting, J. Hallén, Y. Ommundsen, G. Roberts & E. Tsolakidis (Eds.), *14th annual Congress of the European College of Sport Science - Book of Abstracts* (p. 130). Gamlebyen Grafiske, Norway.
54. Braun, H., **Koehler, K.**, Geyer, H., Thevis, M. & Schaenzer, W. (2009). Dietary supplement use of elite German athletes and knowledge about the contamination problem. In S. Loland, K. Bø, K. Fasting, J. Hallén, Y. Ommundsen, G. Roberts & E. Tsolakidis (Eds.), *14th annual Congress of the European College of Sport Science - Book of Abstracts* (p. 378). Gamlebyen Grafiske, Norway.
55. Frese, S., Looser, P., **Köhler, K.**, Schiffer, T., Boelck, B. & Bloch, W. (2009). Analyse der Skelettmuskelplastizität bei Junioren-Leistungs-Radrennsportlern hinsichtlich der Veränderung des Phänotyps und des Genexpressionsmusters von Myosinschwerketten in Einzelfasern. *Deutsche Zeitschrift für Sportmedizin*, 60, 9.

56. **Koehler, K.**, Braun, H., Marees, M. de, Fusch, G., Fusch, C., Mester, J. & Schaenzer, W. (2008). Validation of the cologne nutrition and activity protocol using doubly-labelled water, indirect calorimetry and 24h urea excretion. In J. Cabri, F. Alves, D. Araújo, J. Barreiros, J. Diniz & A. Veloso (Eds.), 13th Annual Congress of the European College of Sport Science in Estoril, Portugal - Book of Abstracts (pp. 27–28).
57. **Koehler, K.**, Braun, H., Marees, M. de, Mester, J. & Schaenzer, W. (2008). Utilisation of an armband device for monitoring of energy expenditure and activity in running and cycling athletes. In J. Cabri, F. Alves, D. Araújo, J. Barreiros, J. Diniz & A. Veloso (Eds.), 13th Annual Congress of the European College of Sport Science in Estoril, Portugal - Book of Abstracts .
58. Braun, H., **Koehler, K.**, Mester, J. & Schaenzer, W. (2008). Nutrition status and physical activity of german elite junior athletes: preliminary results. In J. Cabri, F. Alves, D. Araújo, J. Barreiros, J. Diniz & A. Veloso (Eds.), 13th Annual Congress of the European College of Sport Science in Estoril, Portugal - Book of Abstracts .
59. Parr, M. K., Geyer, H., **Köhler, K.** & Schänzer, W. (2008). Cross-contaminations of vitamine- and mineral-tablets with metandienone and stanozolol. *Lebensmittelchemie*, 62, 76.
60. **Koehler, K.**, Geyer, H., Guddat, S., Orlovius, A., Parr, M. K., Thevis, M., Mester, J. & Schaenzer, W. (2007). Sibutramine found in Chinese herbal slimming tea and capsules. In W. Schänzer, H. Geyer, A. Gotzmann & U. Mareck (Eds.), *Recent advances in doping analysis* (15) (pp. 367–370). Köln: Sport und Buch Strauß.
61. **Koehler, K.**, Parr, M. K., Geyer, H., Bode, C. & Schaenzer, W. (2006). Serum testosterone and urinary steroid profiles after administration of a zinc supplement. In W. Schänzer, H. Geyer, A. Gotzmann & U. Mareck (Eds.), *Recent advances in doping analysis* (14) (pp. 403–406). Köln: Sport und Buch Strauß.
62. Geyer, H., Mareck, U., **Koehler, K.**, Parr, M.K. & Schänzer, W. (2003). Cross-contamination of vitamine- and mineral-tablets with metandienone and stanozolol. In W. Schänzer, H. Geyer, A. Gotzmann & U. Mareck (Eds.), *Recent advances in doping analysis* (11) (pp. 11–16). Köln: Sport und Buch Strauß.
63. Parr, M. K., Geyer, H., Sigmund, G., Koehler, K. & Schänzer, W. (2003). Screening of nutritional supplements for stimulants and other drugs. In W. Schänzer, H. Geyer, A. Gotzmann & U. Mareck (Eds.), *Recent advances in doping analysis* (11) (pp. 67–75). Köln: Sport und Buch Strauß.

### Invited Presentations and Guest Lectures

1. **Koehler, K.** (2021). Effective Weight Loss Through Exercise and Nutrition. Deutscher Fitnesswissenschaftsrat, online [German]
2. **Koehler, K.** (2020). Can Increased Dietary Protein Rescue the Endocrine Response in the Low Energy Availability State? Webinar on Low Energy Availability: Training Adaptation and Performance, Liverpool John Moores University, UK
3. **Koehler, K.** (2020). Energy Balance in Elite and Recreational Athletes. Seminar GeoZentrum Nordbayern, Friedrich-Alexander-Universität Erlangen-Nürnberg.
4. **Koehler, K.** (2020). Why diet or exercise alone are ineffective for long-term weight loss: integrating lifestyle approaches to maximise health benefits. ESC Preventive Cardiology 2020, European Society for Cardiology. Malaga, Spain [cancelled due to Covid-19]
5. **Koehler, K.** (2020). Hauptvortrag: Bewegung und Ernährung. Fachtagung „Prävention und Gesundheitsförderung in Schulen – Sport, Spiel und Bewegung“, Kultusministerkonferenz, Bundeszentrale für gesundheitliche Aufklärung, Deutsche Gesetzliche Unfallversicherung; Dresden, Germany [German; postponed due to Covid-19]



6. **Koehler, K.** (2020). Why we don't lose weight through exercise - but why exercise is still great for weight loss. 2. Fitnesswissenschaftskongress; Düsseldorf, Germany. [German]
7. **Koehler, K.** (2018). Energy Deficiency and Nutrition in High Performance Sports. World Rowing Conference; Berlin, Germany
8. **Koehler, K.,** De Souza, M.J. (2017). Bone Health, Hormonal and Semen Profiles in the Male Athlete. Expert Panel Roundtable, Annual Meeting of the American College of Sport Medicine; Denver, CO
9. **Koehler, K.** (2017). Current Trends in Sports and Exercise Nutrition. Annual Meeting of the Nebraska Academy of Nutrition & Dietetics – Omaha District, Omaha, NE
10. **Koehler, K.** (2016). Why Calories Matter: Regulation of Energy Balance in Exercising Populations and Implications for Health and Performance. Annual Conference of the Nebraska Academy of Nutrition & Dietetics, Lincoln, NE
11. **Koehler, K.** (2016). Impact of Low Energy Availability on Athlete Performance. Ironman University – Triathlon Coach and Athlete Education (online).
12. **Koehler, K.** (2015). Why Calories Matter: Regulation of Energy Balance in Exercising Populations and Implications for Health and Performance. University of Würzburg, Würzburg, Germany.
13. **Köhler, K.** (2009). Energetische Voraussetzungen in Rückschlagspielen. In LandesSportBund Nordrhein-Westfalen (Ed.), Sport ist Spitze - Landessportprogramm Talentsuche und Talentförderung (pp. 93–96). Aachen: Meyer & Meyer. [German]
14. **Köhler, K.** (2009). Bilanzierung des Stoffwechsels im Ausdauersport: Tipps für die Praxis. 11. Internationaler ARCUS Sportmedizin-Kongress, San Zeno di Montagna, Italy. [German]
15. **Köhler, K.** (2009). Beeinflussung des Immunsystems und des Stoffwechsels durch Substitution: Sinn, Unsinn und Gefahren. 11. Internationaler ARCUS Sportmedizin-Kongress, San Zeno di Montagna, Italy. [German]
16. **Koehler, K.,** Braun, H. & Geyer, H. (2008). Ernährung und Aktivität jugendlicher Kaderathleten. In A. Ferrauti, P. Platen & J. Müller (Eds.), Sport ist Spitze (22) Nachwuchsleistungssport in Nordrhein-Westfalen auf dem Prüfstand (pp. 168–172). Aachen: Meyer & Meyer. [German]

### **Grant Reviews**

- Netherlands Organisation for Health Research and Development (ZonMW)

### **Manuscript Reviews (in alphabetic order):**

- Applied Physiology, Nutrition, and Metabolism
- Biology of Sport
- BMC Nutrition
- BONE
- British Journal of Nutrition
- British Journal of Sport Medicine
- Deutsche Zeitschrift für Sportmedizin
- Drug Testing and Analysis
- European Journal of Clinical Nutrition
- European Journal of Sport Sciences
- German Journal of Exercise and Sport Research
- Healthcare
- International Journal of Sport Medicine
- International Journal of Sport Nutrition and Exercise Metabolism
- International Journal of Sports Physiology and Performance
- Journal of Applied Physiology
- Journal of Sports Sciences
- Life
- Medicine and Science in Sports and Exercise
- Nutrients
- Nutrition, Metabolism & Cardiovascular Diseases
- Pediatric Research
- PLOS One
- Public Health Nutrition
- Sports
- Sports Medicine
- The Physician and Sportsmedicine

### **Abstract Reviews:**

- American Society for Nutrition (2017- 2019)

## University Teaching Experience

### Technical University of Munich

- Basis of Nutrition and Hydration (Lecture, B.Sc. Sport Science, B.Sc. Health Science)  
Language: German  
Semesters: Winter 2019/20, Summer 2020, Winter 2020/21, Summer 2021, Winter 2021/22
- Sport and Nutrition (Lecture, B.Sc. Sport Science)  
Language: German  
Semesters: Winter 2019/20, Winter 2020/21, Winter 2021/22
- Nutrition and Health (Lecture, B.Sc. Health Science)  
Language: German  
Semesters: Summer 2020, Summer 2021
- Nutrition Planning (Exercise, B.Sc. Sport Science, B.Sc. Health Science)  
Language: German & English  
Semesters: Winter 2020/21, Summer 2021
- Current Topics in Sports Nutrition (Seminar, M.Sc. Exercise Science)  
Language: English  
Semesters: Summer 2020, Summer 2021
- Research Methods in Sports Nutrition (Exercise, M.Sc. Exercise Science)  
Language: English  
Semesters: Summer 2020
- Nutritional Prevention and Research (Lecture, M.Sc. Health Science)  
Language: English  
Semesters: Winter 2020/21,
- Module Supervision:
  - Basics of Nutrition (B.Sc. Sport Science)
  - Periodization of Nutrition and Training (B.Sc. Sport Science)
  - Nutrition for Health Sciences (B.Sc. Health Sciences)
  - Performance Nutrition (M.Sc. Exercise Science)

### University of Nebraska-Lincoln

- Human Nutrition and Metabolism (NUTR250; Lecture, B.Sc. Nutrition and Health Sciences)  
Semesters: Spring 2017, Spring 2018, Fall 2018, Spring 2019
- Introduction to Sports Nutrition (NUTR355; Lecture, B.Sc. Nutrition and Health Sciences)  
Fall 2016, Fall 2017, Spring 2019
- Journal Club (NUTR496/896, Independent Study, all B.Sc. and M.Sc.)  
Semesters: Spring 2018, Summer 2018, Fall 2018, Spring 2019

- Nutrient Function During Exercise (NUTR960; Seminar, all M.Sc. and Ph.D. students)  
Semesters: Fall 2018

#### Pennsylvania State University

- Nutrition, Exercise, and Performance (KINES 497C; Lecture, B.Sc. Kinesiology)  
Semesters: Spring 2014, Spring 2015

#### German Sport University Cologne

- Basics of Nutrition (Lecture, B.Sc. Sport and Health Sciences)  
Languages: English, German  
Semesters: Winter 2010/11, Summer 2011, Winter 2011/12, Summer 2012, Winter 2012/13, Summer 2013 (until May 2013)
- Nutrition and Substitution (Seminar & Exercise, M.S. Exercise Science)  
Languages: German  
Semesters: Summer 2011, Summer 2012, Summer 2013, Summer 2014 (until May 2013)
- Sport and Nutrition (Seminar, B.Sc. Sport and Health Sciences)  
Languages: English, German  
Semesters: Summer 2012, Winter 2012/13
- Sport and Health (Seminar, B.Sc. Sport and Health Sciences)  
Languages: German  
Semesters: Winter 2010/11, Summer 2011
- Health and Doping Risks of Dietary Supplements (Seminar, B.Sc. Sport Sciences)  
Languages: German  
Winter 2009/10, Summer 2010, Winter 2010/11, Summer 2011, Winter 2011/12
- Nutrition and Dietary Supplements in Sports (Seminar, Teaching Degree in Sport Sciences)  
Languages: English, German  
Semesters: Summer 2007, Winter 2007/08, Summer 2008, Winter 2008/09, Summer 2009, Winter 2009/10
- Basics of Training and Performance (Lecture, co-teaching, B.Sc. Sport Sciences)  
Language: German  
Semesters: Summer 2010, Winter 2010/11, Summer 2011, Winter 2011/12, Summer 2012, Winter 2012/13

#### University of Applied Sciences Bonn Rhein Sieg

- Virology (Lecture, M.Sc. Biology)  
Language: English  
Semesters: Summer 2012 (as substitut lecturer for Prof. Tobiasch)

- Pharmacology and Toxicology (Practicum, M.Sc. Biology)  
Languages: English  
Semesters: Winter 2011/12

University of Hohenheim, Germany

- Mathematics I & II for Natural Sciences (Exercise)  
Language: German  
Semesters: Winter 2001/02, Summer 2002, Winter 2002/03, Summer 2003, Summer 2004, Winter 2004/05

## Supervision

### Technical University of Munich

#### **Postdoctoral Researchers (Supervisor)**

1. Paulina Wasserfurth-Grzybowska (since May 2021); Research Area: Sports and Exercise Nutrition
2. Christoph Höchsmann (since November 2021); Research Area: Physical Activity, Ingestive Behavior, and Health

#### **PhD Students (Supervisor; \*completed and ongoing)**

1. Sieglinde Hechenbichler Figuera, Dr. rer. nat. (projected completion: 2023), Working Title: Metabolic changes and adaptations in diabetes
2. Helena Engel, Dr. rer. nat. (projected completion: 2023), Working Title: Energy Balance in Elite Athletes
3. Alexandra Martin, Dr. phil. (projected completion: 2022), Working Title: Metabolic and Behavioral Adaptations to Perturbations in Energy Balance
4. Chaise Murphy, Dr. phil.\* (2021), Dissertation Title: The Effects of Energy Deficiency, Exercise and Dietary Protein on Skeletal Muscle and Bone

#### **MSc Students (Supervisor; \*completed and ongoing)**

1. Nicola Seifert (July 2022), Comparison of nutritional needs and habits of trampoline gymnasts in Germany
2. Tobias Weis (March 2022), Associations between physical activity, exercise and orthorectic symptoms in adults
3. Daniel Pongratz\* (August 2021), Resting metabolic rate in athletes: the impact of muscle mass
4. Stefanie Gasteiger\* (August 2021), Resting metabolic rate and body composition in acute and recovered Anorexia Nervosa patients compared to healthy subjects: implications of metabolic adaptations
5. Ioanna Rokai\* (July 2021), Differences in the metabolic costs of amputees during walking: A systematic review
6. Jana Söder\* (May 2021), Changes in Body Composition over a Competitive Season in Triathletes
7. Alina Minth\* (September 2020), Impact of different exercise intensities on prospective food intake
8. Sieglinde Hechenbichler\* (September 2020), Relationship between age and bone mineral density after weight loss in young adult women

#### **BSc Students (Supervisor, \*completed and ongoing)**

1. Vincent Saller\* (February 2022), Analysis, intervention & evaluation of the fluid intake of young soccer players
2. Anja Peukert\* (December 2021), Correlation between energy availability, eating disorders, and depressions in sport women
3. Melanie Schmidmaier\* (December 2021), Use of "gadgets" to monitor metabolic changes in a low carbohydrate / ketogenic diet and exercise
4. Yvonne Steiner\* (November 2021), Impact of Training in the Fasted State on Prospective Food Intake
5. Björn Doerner\* (September 2021), Development and Validation of an Online Protocol for Parallel Assessment of Diet and Exercise
6. Martin Zhang\* (August 2021), Impact of Carbohydrate Intake and Tapering on Endurance Performance

7. Alina Simon\* (August 2021), Development of a novel Questionnaire on Food Preference Assessment using Visual Stimuli
8. Mona Saller\* (July 2021), Effect of exercise timing on the postprandial glucose response - a pilot study using continuous glucose monitoring
9. Moritz Penne\* (February 2021), Micronutrient and exercise intervention to minimize menopausal symptoms

### University of Nebraska-Lincoln

#### **Graduate Students (Committee Chair)**

1. Nicole Veseth, M.Sc. Exercise Physiology and Nutrition (May 2020), Use of a Novel Whole-Body Imaging Approach to Predict Resting Metabolic Rate in Athletes
2. Safiya Beckford, M.Sc. Exercise Physiology and Nutrition (graduation: May 2018), The Effects of Exercise on Food Intake
3. Jay Petersen, M.Sc. Exercise Physiology and Nutrition (August 2017), The Effect of Energy Deficiency on Human Health, Metabolism, and Performance
4. Alexandra Martin, M.Sc. Exercise Physiology and Nutrition (August 2017), Contribution of Adaptive Thermogenesis to Metabolic Adaptations Following Weight Loss

#### **Graduate Students (Committee Member)**

1. Laura Flores, M.D. & Ph.D. (projected graduation: 2022): Working Title: Feasibility of Bisphosphonate Use on Sleeve Gastrectomy Associated Bone Loss  
Advisor: Laura Bilek (University of Nebraska-Medical Center)
2. Angela Helseth, Ph.D. Gerontology (projected graduation: 2022), Working Title: Exercise and Food Choice across the Adult Lifespan: Behaviors of Healthy Aging  
Advisor: Julie Boron (University of Nebraska at Omaha)
3. Ashley Mulcahy, Ph.D. Human Sciences (August 2021), Working Title: The metabolic benefits of red raspberries and its potential in mediating Type 2 diabetes and NAFLD in a Latino/Hispanic population  
Advisors: Soonkyu Chung, Virginia Chaidez
4. Nigina Rakhmatullaeva, M.S. Agricultural Economics (August 2018), How Do Restaurant Menu Calorie Labeling Requirement and Exercise Impact Consumer Food Decision Making?  
Advisor: Christopher Gustafson

#### **Undergraduate Students (Research Advisor)**

1. Elly Glazier (UCARE 2017-2019), The Effect of Increased Dietary Protein on Body Protein Breakdown and Anabolic Sensitivity of Bone and Skeletal Muscle During Calorie Restricted Weight; 1st Price in Undergraduate Research Fair Poster Competition (College of Education and Human Sciences)
2. Brian Smith (UCARE 2017-2019), Exploring the Associations among Beef Intake, Iron Status, and Athletic Performance in Nebraska Youth Athletes, 1st Price in Undergraduate Research Fair Poster Competition (College of Arts and Sciences)
3. Darius Fox (McNair Summer Research Experience, 2018; UCARE: 2018-2019), Contribution of Body Composition and Metabolic Adaptations to the Decline in Resting Metabolic Rate during Prolonged Calorie-Restricted Weight Loss
4. Alexander Cristobal (UCARE: 2018-2019), The Impact of Acute Exercise on Food Quality Choice and Selection and its Prediction by Appetite Regulating Hormones
5. Peter Danielson (UCARE, 2016-2017), Can Increased Dietary Protein Maintain Anabolic Sensitivity of Bone and Skeletal Muscle During Caloric Restriction?

6. Mikayla Locke, B.Sc. Nutrition and Health Sciences (UCARE and Honor's Thesis, 2016-2017), Relationship Between Metabolic Suppression and Biological Markers of Energy Deficiency in Exercising Men

### Pennsylvania State University

#### **Graduate Students (Committee Member)**

1. Jay Lieberman, Ph.D. Kinesiology (August 2018), Energy Availability and Exercise-Associated Menstrual Disturbances: A Focus on Key Issues Important for Translation (Advisor: Nancy Williams)
2. Dylan Petkus, M.Sc. Physiology (December 2016), A Higher Prevalence of Iron Depletion in Eumenorrhic Exercising Women than Amenorrhic Exercising Women (Advisor: Mary Jane De Souza)

### German Sport University Cologne

#### **MSc. Students (Thesis Advisor)**

1. Anne Formella, M.Sc. Exercise Nutrition (University of Halle, 2013), Auswirkungen einer Energierestriktion mit und ohne Training auf ausgewählte Stoffwechselfparameter und Befindlichkeit
2. Nils Pilger, M.Sc. Sport Science (2013), Auswirkungen einer Energierestriktion auf Parameter der körperlichen Leistungsfähigkeit
3. Rob Olivar, M.Sc. Sport Science (2012), Underestimation of energy expenditure with the Sensewear armband during uphill and level treadmill exercise
4. Björn Geesmann, M.Sc. Sport Science (2012), Einsatz energetischer, endokrinologischer, hämatologischer und psychologischer Parameter zur Beschreibung des Belastungsprofils einer Extrem-Ausdauerbelastung
5. Fabienne Frick, M.Sc. Sport Science (2011), Applikation von Glycerol unter Ruhebedingungen: Auswirkungen auf den Flüssigkeitshaushalt und Bestimmung der urinären Glycerolausscheidung unter Berücksichtigung der Kohlenstoff-Isotopenverhältnis-Massenspektrometrie
6. Kristina Settner, M.Sc. Sport Science (2011), Energieverfügbarkeit und relevante hormonelle Parameter bei jugendlichen Leistungssportlerinnen

#### **BSc. Students (Thesis Advisor)**

1. Andreas Franzke, B.Sc. Sport Science (2013), Vergleich verschiedener Informationsquellen über Nahrungsergänzungsmittel anhand ausgewählter populärer Präparate
2. Neele Hoerner, B.Sc. Sport Science (2013), Auswirkung einer Energierestriktion auf die belastungsinduzierte Hormonantwort
3. Sebastian Wagener, B.Sc. Sport Science (2013), Auswirkungen von Energierestriktion und körperlicher Aktivität auf das  $^{15}\text{N}/^{14}\text{N}$ -Isotopenverhältnis von urinärem Harnstoff
4. Jonas Kraienhorst, B.Sc. Sport Science (2013), Erfassung von Parametern des Energie- und Flüssigkeitshaushalts bei einer Ultraausdauerbelastung
5. Sarah Gießler, B.Sc. Sport Science (2013), Assoziation zwischen Insulin-like Growth Factor 1 und dem biologischen Alter bei jugendlichen Sportlern
6. Barbara Köpf, B.Ed. Sport Science (2013), Variabilität von Ernährungsdaten im Längs- und Querschnitt
7. Sebastian Lewin, B.Ed. Sport Science (2012), Validierung des SenseWear Armband während kontinuierlicher und intermittierender Fahrradergometerbelastungen



8. Regina Franzki, B.Sc. Sport Science (2012), Prävalenz von Essstörungen unter Sportstudenten
9. Florian Kramer, B.Sc. Sport Science (2012), Ernährungsverhalten von Radfahrern während einer Extrembelastung
10. Markus Schott, B.Sc. Sport Science (2011), Urinäre Ausscheidung von Glycerol nach maximaler endogener Freisetzung durch Nahrungskarenz und Ausdauerbelastung
11. Michael Patalag, B.Sc. Sport Science (2011), Beurteilung des Flüssigkeitshaushalts von Fußballern mithilfe der Urindichte von Dopingkontrollproben aus den Jahren 2007-2010 unter Berücksichtigung saisonaler und klimatischer Faktoren
12. Christoph Ehren, B.Sc. Sport Science (2011), Beurteilung des Flüssigkeitshaushalts von Athleten anhand der Urindichte von Dopingkontrollproben aus den Jahren 2007-2010
13. Björn Geesmann, B.Sc. Sport Science (2010), Einfluss oraler Supplementierung von Vitamin C auf die aerobe Leistungsfähigkeit
14. Anne Formella, B.Sc. Sport Science (2010), Urinäre Ausscheidung von exogenem Glycerol während Ausdauerbelastungen
15. Julius Schneider, B.Sc. Sport Science (2010), Nutritional assessment in members of the Rwandan national cycling team: energy and protein adequacy