

DAFTAR PUSTAKA

- Abramovici, H., Hogan, A., Obagi, C., Topham, M., Gee, S., 2003. Diacylglycerol Kinase- ζ Localization in Skeletal Muscle Is Regulated by Phosphorylation and Interaction with Syntrophins. *Molecular Biology of the Cell*. 14(11):4499-4511.
- Acierno, C., Caturano, A., Pafundi, P., Nevola, R., Adinolfi, L., Sasso, F., 2020. Nonalcoholic fatty liver disease and type 2 diabetes: pathophysiological mechanisms shared between the two faces of the same coin. *Explor Med*. 1:287–306.
- Adam, T. & Epel, E., 2007. Stress, eating and the reward system. *Physiology & Behavior*. 91(4):449-458.
- Adi, S., 2021. Benefits of Sports Activities with FITT Principles During the Covid-19 Pandemic in a "New Normal" Life for Health. *Advances in Health Sciences Research*. 36:121-126.
- Aguiar, L., Nadeau, S., Teixeira-Salmela, L., Reis, M., Peniche, P., Faria, C., 2020. Perspectives, satisfaction, self-efficacy, and barriers to aerobic exercise reported by individuals with chronic stroke in a developing country. *Disability and Rehabilitation*.
- Alari, N. & Kent, L., 2015. Physical Activity Assessment and Impact. *Diet and Exercise in Cystic Fibrosis*. 299-306.
- Alfaddagh, A., Martin, S., Leucker, T., Michos, E., Blaha, M., Lowenstein, C., et al., 2020. Inflammation and cardiovascular disease: From mechanisms to therapeutics. *American Journal of Preventive Cardiology*. 4.
- Amano, Y., Nonaka, Y., Takeda, R., Kano, Y., Hoshino, D., 2020. Effects of electrical stimulation-induced resistance exercise training on white and brown adipose tissues and plasma meteorin-like concentration in rats. *Physiol. Rep*. 8(16).
- American College of Sports Medicine, 2001. American College of Sports Medicine position stand. Appropriate intervention strategies for weight loss and prevention of weight regain for adults. *Med. Sci. Sports Exerc*. 33(12):2145-2156.
- American College of Sports Medicine, 2009. *ACSM's guidelines for exercise testing and prescription*. Wolters Kluwer, Philadelphia.
- American College of Sports Medicine, 2009. Progression Models in Resistance Training for Healthy Adults. *Journal of the American College of Sports Medicine*. 687-708.
- American Thoracic Society, 2002. ATS Statement: Guidelines for the Six-Minute Walk Test. *Am J Respir Crit Care Med*. 166:111–117.
- Ammann, B., Knols, R., Baschung, P., de Bie, R., de Bruin, R., 2014. Application of principles of exercise training in sub-acute and chronic stroke survivors: a systematic review. *BMC Neurology*. 14:167.
- Ansari, M., Hardcastle, S., Myers, S., Williams, A., 2023. The Health and Functional Benefits of Eccentric versus Concentric Exercise Training: A Systematic Review and Meta-Analysis. *J. Sports Sci. Med*. 22(2): 288–309.

- Arabmokhtari, R., Khazani, A., Bayati, M., Barmaki, S., Fallah, E., 2018. Relationship between Body Composition and Cardiorespiratory Fitness in Students at Postgraduate Level. *Zahedan Journal of Research in Medical Sciences*: 20(2).
- Arruda, A., Nigro, M., Oliveira, G., de Meis, L., 2007. Thermogenic activity of Ca²⁺-ATPase from skeletal muscle heavy sarcoplasmic reticulum: The role of ryanodine Ca²⁺ channel. *Biochimica et Biophysica Acta*. 1768:1498–1505.
- Ascenzi, F., Barberi, L., Dobrowolny, G., Bacurau, A., Nicoletti, C., Rizzuto, A., et al., 2019. Effects of IGF-1 isoforms on muscle growth and sarcopenia. *Aging Cell*. 18(3).
- Ashby-Thompson, M., Chung, S., Gallagher, D., 2023. *Body composition*. Encyclopedia of Human Nutrition. 4th ed. 20-34.
- Atorrasagasti, C., Onorato, A., Mazzolini, G., 2022. The role of SPARC (secreted protein acidic and rich in cysteine) in the pathogenesis of obesity, type 2 diabetes, and non-alcoholic fatty liver disease. *Journal of Physiology and Biochemistry*.
- Avan, A., Narayan, R., Giovannetti, E., Peters, G., 2016. Role of Akt signaling in resistance to DNA-targeted therapy. *World J. Clin. Oncol.* 7(5):352-369.
- Azzeme, M., 2020. The effects of intersset rest duration on performance and muscle activation during resistance training. *Journal of Physics: Conference Series*.
- Baioumi, A., 2019. Comparing Measures of Obesity: Waist Circumference, Waist-Hip, and Waist-Height Ratios. *Nutrition in the Prevention and Treatment of Abdominal Obesity*.
- Balshaw, T., Massey, G., Maden-Wilkinson, T., Morales-Arthaco, A., McKeown, A., Applebay, C., et al., 2017. Changes in agonist neural drive, hypertrophy and pre-training strength all contribute to the individual strength gains after resistance training. *European Journal of Applied Physiology*. 117:631–640.
- Bandy, W., Lovelace-Chandler, V., Bandy, B., 1990. Adaptation of Skeletal Muscle to Resistance Training. *JOSPT*. 12:6.
- Barakat, C., Pearson, J., Escalante, G., Campbell, B., De Souza, E., 2020. Body Recomposition: Can Trained Individuals Build Muscle and Lose Fat at The Same Time?. *Strength and Conditioning Journal*. 7-21.
- Baranowski, T., 1988. Validity and Reliability of Self Report Measures of Physical Activity: An Information-Processing Perspective. *Research Quarterly for Exercise and Sport*. 59(4):314-327.
- Barbalho, S., Flato, U., Tofano, R., Goulart, R., Guiguer, E., Detregiachi, C., et al., 2020. Physical Exercise and Myokines: Relationships with Sarcopenia and Cardiovascular Complications. *Int. J. Mol. Sci.* 21(10).
- Barbatelli, G., Murano, I., Madsen, L., Hao, Q., Jimenez, M., Kristiansen, K., et al., 2010. The emergence of cold-induced brown adipocytes in mouse white fat depots is determined predominantly by white to brown adipocyte transdifferentiation. *Am J Physiol Endocrinol Metab*. 298:E1244–E1253.
- Barreira, T., Staiano, A., Harrington, D., Heymsfield, S., Smith, S., Bouchard, C., et al., 2012. Anthropometric Correlates of Total Body Fat, Abdominal

- Adiposity, and Cardiovascular Disease Risk Factors in a Biracial Sample of Men and Women. *Mayo Clin Proc.* 87(5):452–460.
- Bartelt, A., Bruns, O., Reimer, R., Hohenberg, H., Ittrich, H., Peldschus, K., et al., 2011. Brown adipose tissue activity controls triglyceride clearance. *Nature Medicine.* 17(2):200-205.
- Bennie, J., De Cocker, K., Teychenne, M., Brown, W., Biddle, S., 2019. The epidemiology of aerobic physical activity and muscle-strengthening activity guideline adherence among 383,928 U.S. adults. *International Journal of Behavioral Nutrition and Physical Activity.* 16(34).
- Bennie, J., Shakespear-Druery, J., De Cocker, K., 2020. Muscle-strengthening Exercise Epidemiology: a New Frontier in Chronic Disease Prevention. *Sports Medicine – Open.* 6(40).
- Benton, D., 2015. Portion Size: What We Know and What We Need to Know. *Crit. Rev. Food. Sci. Nutr.* 55(7):988-1004.
- Benton, M., Hutchins, A., Dawes, J., 2020. Effect of menstrual cycle on resting metabolism: A systematic review and meta-analysis. *PLoS One.* 15(7).
- Bentzinger, C., von Maltzahn, J., Dumont, N., Stark, D., Wang, Y., Nhan, K. Et al., 2014. Wnt7a stimulates myogenic stem cell motility and engraftment resulting in improved muscle strength. *The Journal of Cell Biology.* 205(1):97–111.
- Berk, M., Williams, L., Jacka, F., O’Neil, A., Pasco, J., Moylan, S., et al., 2013. So depression is an inflammatory disease, but where does the inflammation come from?. *BMC Med.* 11(200).
- Bertholet, A., Kazak, L., Chouchani, E., Bogaczyńska, M., Paranjpe, I., Wainwright, G., et al., 2017. Mitochondrial Patch-Clamp of Beige Adipocytes Reveals UCP1-positive and UCP1-negative Cells Both Exhibiting Futile Creatine Cycling. *Cell Metab.* 25(4):811–822.
- Bhatti, J., Kumar, S., Vijayan, M., Bhatti, G., Reddy, P., 2017. Therapeutic Strategies for Mitochondrial Dysfunction and Oxidative Stress in Age-Related Metabolic Disorders. *Progress in Molecular Biology and Translational Science.* 146:13-41.
- Bickel, C., Slade, J., Mahoni, E., Haddad, F., Dudley, G., Adams, G., 2005. Time course of molecular responses of human skeletal muscle to acute bouts of resistance exercise. *Journal of Applied Physiology.* 98(2):482-488.
- Björntorp, P., 2001. Do stress reactions cause abdominal obesity and comorbidities?. *Obesity Reviews.* 2:73–86.
- Bonnie, R., Stroud, C., Brenier, H., 2015. *Investing in the Health and Well-Being of Young Adults.* The National Academies Press, Washington, DC.
- Bordicchia, M., Liu, D., Amri, E., Ailhaud, G., Dessì-Fulgheri, P., Zhang, C., et al., 2012. Cardiac natriuretic peptides act via p38 MAPK to induce the brown fat thermogenic program in mouse and human adipocytes. *J. Clin. Invest.* 22(3):1022–1036.
- Boström, P., Wu, J., Jedrychowski, M., Korde, A., Ye, L., Lo, J., et al., 2012. A PGC1- α -dependent myokine that drives brown-fat-like development of white fat and thermogenesis. 481:463-468.

- Brownson, R., Boehmer, T., Luke, D., 2005. Declining Rates of Physical Activity in The United States: What Are The Contributors?. *Annual Review of Public Health*. 26:421-443.
- Bremer, A., Devaraj, S., Afif, A., Jialal, I., 2011. Adipose tissue dysregulation in patients with metabolic syndrome. *J Clin Endocrinol Metab*. 96(11):E1782-E1788.
- Buffenstein, R., Poppitt, S., McDevitt, R., Prentice, R., 1995. Food Intake and the Menstrual Cycle: A Retrospective Analysis, With Implications for Appetite Research. *Physiology & Behavior*. 58(6):1067-1077.
- Burru, R., Tucker, L., Le Cheminant, J., Bailey, B., 2018. Strength training and body composition in middle-age women. *The Journal of Sports Medicine and Physical Fitness*. 58(1-2):82-91.
- Bushman, B., 2018. Developing the P (for Progression) in a FITT-VP Exercise Prescription. *ACSM's Health & Fitness Journal*.
- Calatayud, J., Morera, Á., Ezzatvar, Y., López-Bueno, R., Andersen, L., Cuenca-Martínez, F., et al., 2022. Importance of frequency and intensity of strength training for work ability among physical therapists. *Scientific Reports*. 12(15016).
- Cannon, B. & Nedergaard, J., 2004. Brown Adipose Tissue: Function and Physiological Significance. *Physiol. Rev*. 84:277–359.
- Cao, J., Maowulieti, G., Yu, T., 2019. Effect of testosterone on the expression of PPAR γ mRNA in PCOS patients. *Exp. Ther. Med*. 17(3):1761–1765.
- Cao, Y., 2013. Angiogenesis and Vascular Functions in Modulation of Obesity, Adipose Metabolism, and Insulin Sensitivity. *Cell Metabolism*. 18(4):478-489.
- Carey, D., 2009. Quantifying Differences in the “Fat Burning” Zone and the Aerobic Zone: Implications For Training. *Journal of Strength and Conditioning Research*. 23(7):2090-2095.
- Carper, D., Coué, M., Nascimento, M., Barquissau, V., Lagarde, D., Pestourie, C., et al., 2020. Atrial Natriuretic Peptide Orchestrates a Coordinated Physiological Response to Fuel Non-shivering Thermogenesis. *Cell Reports*. 32(8).
- Carson, B., 2017. The Potential Role of Contraction-Induced Myokines in the Regulation of Metabolic Function for the Prevention and Treatment of Type 2 Diabetes. *Front. Endocrinol (Lausanne)*. 8(97).
- Casadei, K. & Kiel, J., 2022. *Anthropometric Measurement*. StatPearls Publishing.
- Casano, H. & Anjum, F., 2022. *Six Minute Walk Test*. StatPearls Publishing.
- Caspersen, C., Powell, K., Christenson, G., 1985. Physical Activity, Exercise, and Physical Fitness: Definitions and Distinctions for Health-Research. *Public Health Reports*. 100(2):126-131.
- Cesari, M., Kritchevsky, S., Baumgartner, R., Atkinson, H., Penninx, B., Lenchik, L., et al., 2005. Sarcopenia, obesity, and inflammation—results from the Trial of Angiotensin Converting Enzyme Inhibition and Novel Cardiovascular Risk Factors study. *The American Journal of Clinical Nutrition*. 82(2):428–434.
- Chaabna, K., Mamtani, R., Abraham, A., Maisonneuve, P., Lowenfels, A., Cheema, S., 2022. Physical Activity and Its Barriers and Facilitators among

- University Students in Qatar: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health*. 19.
- Chait, A. & Hartigh, D., 2020. Adipose Tissue Distribution, Inflammation and Its Metabolic Consequences, Including Diabetes and Cardiovascular Disease. *Front Cardiovasc Med*. 7(22).
- Chen, K. & Bassett, D., 2005. The Technology of Accelerometry-Based Activity Monitors: Current and Future. *Medicine & Science in Sports & Exercise*. 37(11):S490-S500.
- Chen, L., Qin, Y., Liu, B., Gao, M., Li, A., Li, X., et al., 2022. PGC-1 α -Mediated Mitochondrial Quality Control: Molecular Mechanisms and Implications for Heart Failure. *Front. Cell Dev. Biol*.
- Cheng, C., Chen, P., Lin, Y., Kao, Y., 2015. High glucose activates Raw264.7 macrophages through RhoA kinase-mediated signaling pathway. *Cellular Signalling*. 27(2):283-292.
- Cheng, L., Wang, J., Dai, H., Duan, Y., An, Y., Shi, L., et al., 2021. Brown and beige adipose tissue: a novel therapeutic strategy for obesity and type 2 diabetes mellitus. *Adipocyte*. 10(1):48–65.
- Chertow, G., 1999. Estimates of Body Composition as Intermediate Outcome Variables: Are DEXA and BIA Ready for Prime Time?. *Journal of Renal Nutrition*. 9(3):138-141.
- Chiang, H., Lee, P., Chen, Y., Lin, C., Xu, S., Lin, Y., et al., 2022. Low Cardiorespiratory Fitness, Muscular Fitness, and Flexibility Are Associated with Body Fat Distribution and Obesity Risk Using Bioelectrical Impedance in Taiwanese Adults. *Int. J. Environ. Res. Public Health*. 19(14).
- Chin, S., Kahathuduwa, C., Binks, M., 2016. Physical activity and obesity: what we know and what we need to know. *Obesity Reviews*. 17:1226–1244.
- Chiu, C., Ko, M., Wu, L., Yeh, D., Kan, N., Lee, P., et al., 2017. Benefits of different intensity of aerobic exercise in modulating body composition among obese young adults: a pilot randomized controlled trial. *Health and Quality of Life Outcomes*. 15(168).
- Cinti, S., 2001. The adipose organ: morphological perspectives of adipose tissues. *Proceedings of the Nutrition Society*. 60:319–328.
- Cinti, S., Mitchell, G., Barbatelli, G., Murano, I., Ceresi, E., Faloia, E., et al., 2005. Adipocyte death defines macrophage localization and function in adipose tissue of obese mice and humans. *Journal of Lipid Research*. 46(11):P2347-2355.
- Clément, K., Vigurie, N., Diehn, M., Alizadeh, A., Barbe, P., Thalamas, C., et al., In Vivo Regulation of Human Skeletal Muscle Gene Expression by Thyroid Hormone. *Genome Research*. 281-291.
- Cornish, S., Bugera, E., Duhamel, T., Peeler, J., Anderson, J., 2020. A focused review of myokines as a potential contributor to muscle hypertrophy from resistance-based exercise. *European Journal of Applied Physiology*.
- Costill, D., Coyle, E., Fink, W., Lesmes, G., Witzmann, F., 1979. Adaptations in skeletal muscle following strength training. *J Appl Physiol Respir Environ Exerc Physiol*. 46(1):96-99.

- Courville, A., Yang, S., Andrus, S., Hayat, N., Kuemmerle, A., Leahy, E., et al., 2020. Body Adiposity Measured by Bioelectrical Impedance is an Alternative to Dual-energy X-ray Absorptiometry in Black Africans: The Africans in America Study. *Nutrition*. 74.
- Crandall, D., Busler, D., Novak, T., Weber, R., Kral, J., 1998. Identification of Estrogen Receptor b RNA in Human Breast and Abdominal Subcutaneous Adipose Tissue. *Biochemical And Biophysical Research Communications*. 248(3):523-526.
- Cullinen, K. & Caldwell, M., 1998. Weight training increases fat-free mass and strength in untrained young women. *Journal of The American Dietetic Association*. 98(4):414-418.
- Daley, A., Copeland, R., Wright, N., Wales, J., 2008. 'I Can Actually Exercise If I Want To; It Isn't As Hard As I Thought': A Qualitative Study of the Experiences and Views of Obese Adolescents Participating in an Exercise Therapy Intervention. *Journal of Health Psychology*. 13(6):810-819.
- Dean, A., Sullivan, K., Soe, M., 2023. *OpenEpi: Open Source Epidemiologic Statistics for Public Health*.
- Delbaere, I., Verbiest, S., Tydén, T., 2020. Knowledge about the impact of age on fertility: a brief review. *Ups. J. Med. Sci*. 125(2):167-174.
- Demerath, E., Sun, S., Rogers, N., Lee, M., Reed, D., Choh, A., et al., 2007. Anatomical Patterning of Visceral Adipose Tissue: Race, Sex, and Age Variation. *Obesity (Silver Spring)*. 15(12):2984-2993.
- DeSimone, G., 2019. The Tortoise Factor — Get FITT. *American College of Sports Medicine*. 23(2).
- Deurenberg, P., Yap, M., van Staveren, W., 1998. Body mass index and percent body fat: a meta analysis among different ethnic groups. *International Journal of Obesity*. 22:1164-1171.
- Deurenberg-Yap, M., Schmidt, G., van Staveren, W., Deurenberg, P., 2000. The paradox of low body mass index and high body fat percentage among Chinese, Malays and Indians in Singapore. *International Journal of Obesity*. 24:1011-1017.
- Deurenberg-Yap, M. & Deurenberg, P., 2003. Is a Re-evaluation of WHO Body Mass Index Cut-off Values Needed? The Case of Asians in Singapore. *Nutrition Reviews*. 61(5):S80-S87.
- Dewi, R., Rimawati, N., Purbodjati, P., 2021. Body mass index, physical activity, and physical fitness of adolescence. *J. Public. Health. Res*. 10(2).
- Dhurandhar, N., 2022. What is obesity?. *International Journal of Obesity*. 46:1081-1082.
- Diaz, K., Thanataveerat, A., Parsons, F., Yoon, S., Cheung, Y., Alcantara, C., et al., 2018. The Influence of Daily Stress on Sedentary Behavior: Group and Person (N of 1) Level Results of a 1-Year Observational Study. *Psychosom. Med*. 80(7):620-627.
- Donnelly, J., Blair, S., Jakicic, J., Manore, M., Rankin, J., Smith, B., 2009. Appropriate Physical Activity Intervention Strategies for Weight Loss and Prevention of Weight Regain for Adults. *Medicine & Science in Sports & Exercise*. 41(2):459-471.

- Draper, C., Duisters, K., Weger, B., Chakrabarti, A., Harms, A., Brennan, L., et al., 2018. Menstrual cycle rhythmicity: metabolic patterns in healthy women. *Scientific Reports*. 8.
- Drenowatz, C. & Eisenmann, J., 2011. Validation of the SenseWear Armband at high intensity exercise. *European Journal of Applied Physiology*. 111:883–887.
- Durnin, J. & Womersley, J., 1974. Body fat assessed from total body density and its estimation from skinfold thickness : measurements on 481 men and women aged from 16 to 72 years. *Br. J. Nutr.* 32:77-96.
- Dwicahya, N., 2017. Pengaruh Latihan *Circuit Bodyweight* Terhadap Kebugaran Jasmani, Indeks Massa Tubuh, Persentase Lemak Tubuh dan Fleksibilitas Member *Fitness Center* Lotus Nusantara Bersinar Ros-In Hotel Yogyakarta. *Universitas Negeri Yogyakarta*.
- Dwyer, A. & Quinton, R., 2018. The Metabolic Syndrome in Central Hypogonadotrophic Hypogonadism. *Frontiers of Hormone Research*. 49:156-169.
- Eaton-Evans, J., 2005. *Encyclopedia of Human Nutrition*. 2th ed. Elsevier.
- Elabd, C., Cousin, W., Upadhyayula, P., Chen, R., Chooljian, M., Li, J., et al., 2014. Oxytocin is an age-specific circulating hormone that is necessary for muscle maintenance and regeneration. *Nat. Commun.* 5.
- Elks, C., den Hoed, M., Zhao, J., Sharp, S., Wareham, N., Loos, R., et al., 2012. Variability in the Heritability of Body Mass Index: A Systematic Review and Meta-Regression. *Front. Endocrinol. (Lausanne)*. 3(29).
- Ellulu, M., Patimah, I., Khaza'ai, H., Rahmat, A., Abed, Y., 2017. Obesity and inflammation: the linking mechanism and the complications. *Arch. Med. Sci.* 13(4):851–863.
- Evans, E., Arngrimsson, S., Cureton, K., 2001. Body composition estimates from multicomponent models using BIA to determine body water. *Med. Sci. Sports Exerc.* 33(5):839–845.
- Faradisa, I., Muhammad, R., Girindraswari, D., 2022. Design Body Mass Index (BMI) and Body Fat Percentage Using Fuzzy Logic. *Indonesian Journal of Electronics, Electromedical Engineering, and Medical Informatics*. 4(2):94-106.
- Farinatti, P., Neto, A., da Silva, N., 2013. Influence of Resistance Training Variables on Excess Postexercise Oxygen Consumption: A Systematic Review. *International Scholarly Research Notices*. 2013(825026).
- Fausnacht, A., Myers, E., Hess, E., Davy, B., Hedrick, V., 2020. Update of the BEVQ-15, a beverage intake questionnaire for habitual beverage intake for adults: determining comparative validity and reproducibility. *Journal of Human Nutrition and Dietetics*. 33(5).
- Feingold, K., 2021. *Introduction to Lipids and Lipoproteins*. Endotext [Internet]. South Dartmouth (MA).
- Feldman, H., Longcope, C., Derby, C., Johannes, C., Araujo, A., Coviello, A., et al., 2002. Age Trends in the Level of Serum Testosterone and Other Hormones in Middle-Aged Men: Longitudinal Results from the Massachusetts Male

- Aging Study. *The Journal of Clinical Endocrinology & Metabolism*. 87(2):589–598.
- Fitranti, D., Aniq, K., Purwanti, R., Kurniawati, D., Wijayanti, H., Saphira, R., 2022. Asupan Makanan dan Intensitas Latihan Kaitannya dengan Fungsi Ginjal dan Komposisi Tubuh pada Komunitas Gym. *Amerta Nutrition*. 6(1):63-71.
- Fox, C., Massaro, J., Hoffmann, U., Pou, K., Maurovich-Horvart, P., Liu, C., 2007. Abdominal Visceral and Subcutaneous Adipose Tissue Compartments. *Circulation*. 116(1):39-48.
- Freedson, P., Pober, D., Janz, K., 2005. Calibration of Accelerometer Output for Children. *Medicine & Science in Sports & Exercise*. 37:S523–S530.
- Gabriel, K., McClain, J., Schmid, K., Storti, K., Ainsworth, B., 2010. Reliability and convergent validity of the past-week Modifiable Activity Questionnaire. *Public Health Nutrition*. 14(3):435-442.
- Gallagher, D., Ruts, E., Visser, M., Heshka, S., Baumgartner, R., Wang, J., et al., 2000. Weight stability masks sarcopenia in elderly men and women. *Am. J. Physiol. Endocrinol. Metab*. 279:E366–E375.
- Gandhi, A., Yu, J., Gupta, A., Guo, T., Iyengar, P., Infante, R., 2022. Cytokine-Mediated STAT-3 Transcription Supports ATGL/CGI-58-Dependent Adipocyte Lipolysis in Cancer Cachexia. *Front. Oncol*. 12.
- Gao, H. & Dahlman-Wright, K., 2013. Implications of estrogen receptor alpha and estrogen receptor beta for adipose tissue functions and cardiometabolic complications. *Horm. Mol. Biol. Clin. Invest*. 15(3):81–90.
- Garber, C., Blissmer, B., Deschenes, M., Franklin, B., Lamonte, M., Lee, I., et al., 2011. Quantity and Quality of Exercise for Developing and Maintaining Cardiorespiratory, Musculoskeletal, and Neuromotor Fitness in Apparently Healthy Adults: Guidance for Prescribing Exercise. *Medicine & Science in Sports & Exercise*. 43(7):1334-1359.
- Gemmink, A., Schrauwen, P., Hesselink, M., 2020. Exercising your fat (metabolism) into shape: a muscle-centred view. *Diabetologia*. 63:1453–1463.
- Gentil, P., Ramirez-Campillo, R., Souza, D., 2020. Resistance Training in Face of the Coronavirus Outbreak: Time to Think Outside the Box. *Frontiers in Physiology*. 11(859).
- Ghadieh, A., 2015. Evidence for exercise training in the management of hypertension in adults. *Can Fam Physician*. 61(3):233–239.
- Gleyzer, N., Vercauteren, K., Scarpulla, R., 2005. Control of Mitochondrial Transcription Specificity Factors (TFB1M and TFB2M) by Nuclear Respiratory Factors (NRF-1 and NRF-2) and PGC-1 Family Coactivators. *Mol. Cell. Biol*. 25(4):1354–1366.
- Gois, M., Campoy, F., Alves, T., Ávila, R., Vanderlei, L., Pastre, C., 2014. The influence of resistance exercise with emphasis on specific contractions (concentric vs. eccentric) on muscle strength and post-exercise autonomic modulation: a randomized clinical trial. *Brazilian Journal Physical Therapy*. 18(1):30-37.
- Gonzalez-Gil, A. & Elizondo-Montemayor, L., 2020. The Role of Exercise in the Interplay between Myokines, Hepatokines, Osteokines, Adipokines, and

- Modulation of Inflammation for Energy Substrate Redistribution and Fat Mass Loss: A Review. *Nutrients*. 12(6).
- Goodpaster, B., Krishnaswami, S., Harris, T., Katsiaras, A., Kritchevsky, S., Simonsick, E., et al., 2005. Obesity, Regional Body Fat Distribution, and the Metabolic Syndrome in Older Men and Women. *Arch Intern Med*. 165:777-783.
- Goodpaster, B. & Sparks, L., 2017. Metabolic flexibility in health and disease. *Cell Metab*. 25(5):1027–1036.
- Gorczyca, A., Sjaarda, L., Mitchell, E., Perkins, N., Schliep, K., Wactawski-Wende, J., et al., 2016. Changes in macronutrient, micronutrient, and food group intakes throughout the menstrual cycle in healthy, premenopausal women. *European Journal of Nutrition*. 55:1181–1188.
- Goyal, N. & Chad, D., 2014. *Encyclopedia of the Neurological Sciences*. 3. Elsevier.
- Graham, Z., Gallagher, P., Cardozo, C., 2015. Focal adhesion kinase and its role in skeletal muscle. *J Muscle Res Cell Motil*. 36(0):305–315.
- Grant, R. & Stephens, J., 2015. Fat in flames: influence of cytokines and pattern recognition receptors on adipocyte lipolysis. *Am J Physiol Endocrinol Metab*. 309:E205–E213.
- Green, C., Pramfalk, C., Charlton, C., Gunn, P., Cornfield, T., Pavlides, M., et al., 2020. Hepatic de novo lipogenesis is suppressed and fat oxidation is increased by omega-3 fatty acids at the expense of glucose metabolism. *BMJ Open Diabetes Res. Care*. 8(1).
- Grgic, J., Lazinica, B., Schoenfeld, B., Pedisic, Z., 2020. Test–Retest Reliability of the One-Repetition Maximum (1RM) Strength Assessment: a Systematic Review. *Sports Medicine – Open*. 6(31).
- Grivennikov, S. & Karin, M., 2010. Inflammation and oncogenesis: a vicious connection. *Current Opinion in Genetics & Development*. 20(1):65-71.
- Guedes, J., Pieri, B., Luciano, T., Margues, S., Guglielmo, L., de Souza, C., 2020. Muscular resistance, hypertrophy and strength training equally reduce adiposity, inflammation and insulin resistance in mice with diet-induced obesity. *Einstein (Sao Paulo)*. 18(eAO4784).
- Guyton, A. & Hall, J., 2016. *Buku Ajar Fisiologi Kedokteran*. ed. 13. Singapura: Elsevier.
- Haff, G. & Triplett, N., 2016. *Essentials of Strength Training and Conditioning*. 4th. ed. Human Kinetics.
- Halberg, N., Wernstedt, I., Scherer, P., 2008. The Adipocyte as an Endocrine Cell. *Endocrinol. Metab. Clin. North. Am*. 37(3).
- Hammes, S. & Levin, E., 2019. Impact of estrogens in males and androgens in females. *J. Clin. Invest*. 129(5):1818–1826.
- Harahap, F. & Siregar, N., 2021. Pengaruh *Circuit Training* terhadap Penurunan Persentase *Body Fat* pada Mahasiswa Ilmu Keolahragaan Universitas Negeri Medan Angkatan 2018. *Jurnal Ilmu Keolahragaan*. 20(2):205-210.
- Hardy, L., Hills, A., Timperio, A., Cliff, D., Lubans, D., 2013. A hitchhiker's guide to assessing sedentary behaviour among young people: Deciding what method to use. *Journal of Science and Medicine in Sport*. 16(1):28-35.

- Hart, P. & Buck, D., 2019. The effect of resistance training on health-related quality of life in older adults: Systematic review and meta-analysis. *Health Promot Perspect.* 9(1):1–12.
- Hattori, K., Tahara, Y., Moji, K., Aoyagi, K., Furusawa, T., 2004. Chart analysis of body composition change among pre- and postadolescent Japanese subjects assessed by underwater weighing method. *International Journal of Obesity.* 28:520–524.
- Heaselgrave, S. & Smeuninx, B., 2018. Dose-Response of Weekly Resistance Training Volume and Frequency on Muscular Adaptations in Trained Males. *International Journal of Sports Physiology and Performance.*
- Hedrick, V., Comber, D., Estabrooks, P., Savla, J., Davy, B., 2010. The Beverage Intake Questionnaire: Initial Validity and Reliability. *J. Am. Diet Assoc.* 110(8):1227–1232.
- Heitmann, B., Erikson, H., Ellsinger, B., Mikkelsen, K., Larsson, B., 2000. Mortality associated with body fat, fat-free mass and body mass index among 60-year-old Swedish men—a 22-year follow-up. The study of men born in 1913. *International Journal of Obesity.* (24):33–37.
- Hensen, S., 2017. Measuring Physical Activity With Heart Rate Monitors. *Am. J. Public Health.* 107(12).
- Herold, J. & Kalucka, J., 2021. Angiogenesis in Adipose Tissue: The Interplay Between Adipose and Endothelial Cells. *Front. Physiol.* 11.
- Hildebrandt, X., Ibrahim, M., Peltzer, N., 2022. Cell death and inflammation during obesity: “Know my methods, WAT(son)”. *Cell Death & Differentiation.* 30:279-292.
- Ho-Pham, L., Lai, T., Nguyen, M., Nguyen, T., 2015. Relationship between Body Mass Index and Percent Body Fat in Vietnamese: Implications for the Diagnosis of Obesity. *PLoS One.* 10(5).
- den Hoed, M., Westerterp-Plantenga, M., Bouwman, F., Mariman, E., Westerterp, K., 2009. Postprandial responses in hunger and satiety are associated with the rs9939609 single nucleotide polymorphism in FTO. *Am J Clin Nutr.* 90:1426–32.
- Hong, S., Song, W., Zushin, P., Liu, B., Jedrychowski, M., Mina, A., et al., 2018. Phosphorylation of Beta-3 adrenergic receptor at serine 247 by ERK MAP kinase drives lipolysis in obese adipocytes. *Molecular Metabolism.* 12:25-38.
- Howitt, C., Brage, S., Hambleton, I., Westgate, K., Samuels, T., Rose, A., et al., 2016. A cross-sectional study of physical activity and sedentary behaviours in a Caribbean population: combining objective and questionnaire data to guide future interventions. *BMC Public Health.* 16(1036).
- Hu, E., Pan, A., Malik, V., Sun, Q., 2012. White rice consumption and risk of type 2 diabetes: meta-analysis and systematic review. *BMJ.* 344.
- Hunter, G., Lara-Castro, C., Byrne, N., Zakharkin, S., Onge, M., Allison, D., 2005. Weight Loss Needed to Maintain Visceral Adipose Tissue During Aging. *International Journal of Body Composition Research.* 3(2):55-61.
- Hunter, G., Chandler-Laney, P., Brock, D., Lara-Castro, C., Fernandez, J., Gower, B., 2010. Fat Distribution, Aerobic Fitness, Blood Lipids, and Insulin

- Sensitivity in African-American and European-American Women. *Obesity (Silver Spring)*. 18(2).
- Ikeda, K. & Yamada, T., 2020. UCP1 Dependent and Independent Thermogenesis in Brown and Beige Adipocytes. *Front. Endocrinol.* 11.
- Ilman, M., Zuhairini, Y., Siddiq, A., 2015. Correlation between Body Mass Index and Body Fat Percentage. *Althea Medical Journal*. 2(4).
- Indraswari, D., Al-Ahmadi, H., Sari, D., Jordan, T., Puruhito, B., Basyar, E., et al., 2021. Body mass index and waist circumference are associated with visceral fat measured by bioelectrical impedance analysis in adolescents. *Diponegoro Medical Journal*. 10(5):351-356.
- Jang, Y. & Baik, E., 2013. JAK-STAT pathway and myogenic differentiation. *JAK-STAT*. 2(2).
- Jo, A. & Mainous III, A., 2018. Informational value of percent body fat with body mass index for the risk of abnormal blood glucose: a nationally representative cross-sectional study. *BMJ Open*. 8.
- Johnsen, E. & van den Tillaar, R., 2021. Effects of training frequency on muscular strength for trained men under volume matched conditions. *PeerJ*. 9.
- Jørgensen, L., Petersson, S., Sellathurai, J., Andersen, D., Thayssen, S., Sant, D., et al., 2009. Secreted Protein Acidic and Rich in Cysteine (SPARC) in Human Skeletal Muscle. *J Histochem Cytochem*. 57(1):29–39.
- Jubrias, S., Esselman, P., Price, L., Cress, M., Conley, K., 2001. Large energetic adaptations of elderly muscle to resistance and endurance training. *J Appl Physiol*. 90(5):1663-1670.
- Judge, L., Bellar, D., Popp, J., Craig, B., Schoeff, M., Hoover, D., et al., 2021. Hydration to Maximize Performance and Recovery: Knowledge, Attitudes, and Behaviors Among Collegiate Track and Field Throwers. *J. Hum. Kinet*. 79:111–122.
- Kang, S., Park, K., Sung, K., Yuan, Y., Lim, S., 2021. Effect of Resistance Exercise on the Lipolysis Pathway in Obese Pre- and Postmenopausal Women. *J. Pers. Med*. 11(9).
- Kamei, N., Tobe, K., Suzuki, R., Ohsugi, M., Watanabe, T., Kubota, N., et al., 2006. Overexpression of Monocyte Chemoattractant Protein-1 in Adipose Tissues Causes Macrophage Recruitment and Insulin Resistance. *Molecular Basis of Cell and Developmental Biology*. 281(36):P26602-26614.
- Karastergiou, K., Smith, S., Greenberg, A., Fried, S., 2012. Sex differences in human adipose tissues – the biology of pear shape. *Biol Sex Differ*. 3(13).
- Kathage, B., Gehlert, S., Ulbricht, A., Lüdecke, L., Tapia, V., Orfanos, Z., et al., 2017. The cochaperone BAG3 coordinates protein synthesis and autophagy under mechanical strain through spatial regulation of mTORC1. *Biochimica et Biophysica Acta (BBA)*. 1864(1):62-75.
- Keipert, S. & Jastroch, M., 2014. Brite/beige fat and UCP1 — is it thermogenesis?. *Biochimica et Biophysica Acta (BBA) – Bioenergetics*. 1837(7):1075-1082.
- Kelly, D. & Jones, T., 2015. Testosterone and obesity. *Obesity Reviews*. 16:581–606.

- Kementrian Kesehatan Republik Indonesia, 2011. *Strategi Nasional Penerapan Pola Konsumsi Makanan dan Aktivitas Fisik untuk Mencegah Penyakit Tidak Menular*. Jakarta.
- Kementerian Kesehatan Republik Indonesia, 2022. *Standar Alat Antropometri dan Alat Deteksi Dini Perkembangan Anak*. Jakarta.
- Kemmler, W., Kohl, M., Fröhlich, M., Engelke, K., von Stengel, S., Schoene, D., 2020. Effects of High-Intensity Resistance Training on Fitness and Fatness in Older Men With Osteosarcopenia. *Front. Physiol.* 11
- Keramat, S., Alam, K., Rana, R., Chowdury, R., Farjana, F., Hashmi, R., et al., 2021. Obesity and the risk of developing chronic diseases in middle-aged and older adults: Findings from an Australian longitudinal population survey, 2009–2017. *PLoS One*. 16(11).
- Kim, B., 2008. Thyroid Hormone as a Determinant of Energy Expenditure and the Basal Metabolic Rate. *Thyroid*. 18(2):141-144.
- Kim, S., Lee, H., So, W., 2018. The Relationship of Exercise Frequency to Body Composition and Physical Fitness in Dormitory-Dwelling University Students. *J. Mens. Health*. 14(1):e32-e43.
- Kim, S. & Singh, H., 2022. Sex-specific associations among total bone-specific physical activity score, aortic parameters, and body composition in healthy young adults. *J. Exerc. Sci. Fit*. 20(1):27–31.
- Knudsen, J., Murholm, M., Carey, A., Biensø, R., Basse, A., Allen, T., 2014. Role of IL-6 in Exercise Training- and Cold-Induced UCP1 Expression in Subcutaneous White Adipose Tissue. *PLoS ONE*. 9(1).
- Kolnes, K., Petersen, M., Lien-Iversen, T., Højlund, K., Jensen, J., 2021. Effect of Exercise Training on Fat Loss—Energetic Perspectives and the Role of Improved Adipose Tissue Function and Body Fat Distribution. *Front. Physiol.* 12.
- Koochakpour, G., Esfandiar, Z., Hosseini-Esfahani, F., Mirmiran, P., Daneshpour, M., Sedaghati-Khayat, B., et al., 2019. Evaluating the interaction of common FTO genetic variants, added sugar, and trans-fatty acid intakes in altering obesity phenotypes. *Nutrition, Metabolism & Cardiovascular Diseases*.
- Kounoupis, A., Papadopoulos, S., Galanis, N., Dipla, K., Zafeiridis, A., 2020. Are Blood Pressure and Cardiovascular Stress Greater in Isometric or in Dynamic Resistance Exercise?. *Sports*. 8(4).
- Kraemer, W. & Ratamess, N., 2005. Hormonal responses and adaptations to resistance exercise and training. *Sports Med*. 35(4):339-61.
- Krüger, M. & Kötter, S., 2016. Titin, a Central Mediator for Hypertrophic Signaling, Exercise-Induced Mechanosignaling and Skeletal Muscle Remodeling. *Front. Physiol.* 7:76.
- Kuo, C. & Harris, M., 2016. Abdominal fat reducing outcome of exercise training: fat burning or hydrocarbon source redistribution. *Can. J. Physiol. Pharmacol.* 94:1-4.
- Kuo, C. & Harris, M., 2021. Scientific Challenges on Theory of Fat Burning by Exercise. *Front. Physiol.* 12.
- Kuo, I. & Ehrlich, B., 2015. Signaling in Muscle Contraction. *Cold Spring Harb Perspect Biol*. 7(2).

- Kuriyan, R., 2018. Body composition techniques. *Indian J Med Res.* 148:648-658.
- Kurylowicz, A., 2023. Estrogens in Adipose Tissue Physiology and Obesity-Related Dysfunction. *Biomedicines.* 11(3).
- Kvist, H., Chowdury, B., Grangård, U., Tylén, U., Sjöström, L. 1988. Total and visceral adipose-tissue volumes derived from measurements with computed tomography in adult men and women: predictive equations. *The American Journal of Clinical Nutrition.* 48(6):1351-1361.
- Kyrou, I., Randeve, H., Tsigos, C., Kaltsas, G., Weickert, M., 2000. *Clinical Problems Caused by Obesity.* Endotext. South Dartmouth.
- Lacroix, A., Gondal, H., Shumway, K., Langaker, M., 2023. *Physiology, Menarche.* StatPearls [Internet]. Treasure Island.
- Lafontan, M., 2014. Adipose tissue and adipocyte dysregulation. *Diabetes & Metabolism.* 40(1):16-28.
- Lallukka, T., Sarlio-Lähteenkorva, S., Kaila-Kangas, L., Pitkaniemi, J., Luukkonen, R., Leino-Arjas, P., 2008. Working conditions and weight gain: A 28-year follow-up study of industrial employees. *European Journal of Epidemiology.* 23(4):303-310.
- Lambert, C. & Evans, W., 2005. Adaptations to aerobic and resistance exercise in the elderly. *Rev. Endocr. Metab. Disord.* 6(2):137-43.
- Lawson, D., Vann, C., Schoenfeld, B., Haun, C., 2022. Beyond Mechanical Tension: A Review of Resistance Exercise-Induced Lactate Responses & Muscle Hypertrophy. *Journal of Functional Morphology and Kinesiology.* 7(81).
- Lee, J., Sohn, K., Rhee, S., Hwang, D., 2001. Saturated Fatty Acids, but Not Unsaturated Fatty Acids, Induce the Expression of Cyclooxygenase-Mediated through Toll-like Receptor 4. *Mechanisms of Signal Transduction.* 276(20):16683-16689.
- Lee, J. & Jun, H., 2019. Role of Myokines in Regulating Skeletal Muscle Mass and Function. *Front. Physiol.* 10.
- Lee, J. & Muzio, M., 2022. Neuroanatomy, Extrapyramidal System. *StatPearls Publishing.* Treasure Island.
- Lee, M., Lee, B., Kim, C., 2021. Natural Extracts That Stimulate Adipocyte Browning and Their Underlying Mechanisms. *Antioxidants.* 10(2).
- Lee, P., Lai, H., Chou, Y., Chang, L., Chang, W., 2009. Perceptions of Exercise in Obese School-Aged Children. *Journal of Nursing Research.* 17(3):170-178.
- Leenen, R., van der Kooy, K., Seidell, J., Deurenberg, P., Koppeschaar, H., 1994. Visceral fat accumulation in relation to sex hormones in obese men and women undergoing weight loss therapy. *J. Clin. Endocrinol. Metab.* 78(6):1515-1520.
- Li, H., Dong, M., Liu, W., Gao, C., Jia, Y., Zhang, X., et al., 2021. Peripheral IL-6/STAT-3 signaling promotes beiging of white fat. *BBA Molecular Cell Research.*
- Li, X. & Qi, L., 2019. Gene–Environment Interactions on Body Fat Distribution. *Int J Mol Sci.* 20(15).
- Lim, S., Honek, J., Xue, Y., Seki, T., Cao, Z., Andersson, P., et al., 2012. Cold-induced activation of brown adipose tissue and adipose angiogenesis in mice. *Nature Protocols.* (7):606–615.

- Lipecki, K. & Rutowicz, B., 2015. The Impact of Ten Weeks of Bodyweight Training on The Level of Physical Fitness and Selected Parameters of Body Composition in Woman Aged 21-23 Years. *Pol. J. Sport Tourism*. 22:64-73.
- Liu, J., Xiao, Q., Xiao, J., Niu, C., Li, Y., Zhang, X., et al., 2022. iWnt/ β -catenin signalling: function, biological mechanisms, and therapeutic opportunities. *Signal Transduction and Targeted Therapy*. 7(3).
- Liu, M. & Chen, S., 2022. Effects of Low/Medium-Intensity Exercise on Fat Metabolism after a 6-h Fast. *Int J Environ Res Public Health*. 19(23).
- Lorenz, D. & Morrison, S., 2015. Current Concepts In Periodization Of Strength And Conditioning For The Sports Physical Therapist. *The International Journal of Sports Physical Therapy*. 10(6):734-747.
- Lovaglio, W. & Thomas, T., 2000. *Stress hormones in psychophysiological research: Emotional, behavioral, and cognitive implication*. 2nd ed. Cambridge University Press.
- Luna, A., Wilson, D., Wibbelsman, C., Brown, R., Nagashima, R., Hintz, R., et al., 1983. Somatomedins in adolescence: a cross-sectional study of the effect of puberty on plasma insulin-like growth factor I and II levels. *J Clin Endocrinol Metab*. 57(2):268-271.
- Reid, J., Ward, L., Kenealy, T., Cutfield, W., 2020. Bioelectrical Impedance Analysis—An Easy Tool for Quantifying Body Composition in Infancy?. *Nutrients*. 12(4):920.
- Lyristakis, P., Wundersitz, D., Zadow, E., Mnatzaganian, G., Gordon, B., 2022. The influence of considering individual resistance training variables as a whole on muscle strength: A systematic review and meta-analysis protocol. *PLoS ONE*. 17(1).
- Lysenko, E., Vinogradova, O., Popov, D., 2021. The Mechanisms of Muscle Mass and Strength Increase during Strength Training. *Journal of Evolutionary Biochemistry and Physiology*. 57(4):862–875.
- Ma, E., Sahar, N., Jeong, M., Huh, J., 2019. Irisin Exerts Inhibitory Effect on Adipogenesis Through Regulation of Wnt Signaling. *Front. Physiol*. 10.
- Macek, P., Biskup, M., Terek-Derszniak, M., Stachura, M., Krol, H., Gozdz, S., et al., 2020. Optimal Body Fat Percentage Cut-Off Values in Predicting the Obesity-Related Cardiovascular Risk Factors: A Cross-Sectional Cohort Study. *Diabetes Metab Syndr Obes*. 13:1587–1597.
- MacIntosh, B., Murias, J., Keir, D., Weir, J., 2021. What Is Moderate to Vigorous Exercise Intensity?. *Front. Physiol*. 12.
- MacKenzie-Shalders, K., Kelly, J., So, D., Coffey, V., Byrne, N., 2020. The effect of exercise interventions on resting metabolic rate: A systematic review and meta-analysis. *Journal of Sport Sciences*.
- Maes, M., Kubera, M., Obuchowicz, E., Goehler, L., Brzeszcz, J., 2011. Depression's multiple comorbidities explained by (neuro)inflammatory and oxidative & nitrosative stress pathways. *Neuroendocrinol Lett*. 32(1):7–24.
- de Magalhães, A., Carvalho, V., da Cruz, S., Ramalho, A., 2022. Dose-Response Relationship of Resistance Training on Metabolic Phenotypes, Body Composition and Lipid Profile in Menopausal Women. *Int J Environ Res Public Health*. 19(16).

- Marcotte, G., West, D., Baar, K., 2015. The Molecular Basis for Load-Induced Skeletal Muscle Hypertrophy. *Calcif Tissue Int.* 96(3):196–210.
- Martín-Lesende, I., Recalde, E., Viviane-Wunderling, P., Pinar, T., Borghesi, F., Aguirre, T., et al., 2016. Mortality in a cohort of complex patients with chronic illnesses and multimorbidity: a descriptive longitudinal study. *BMC Palliative Care.* 15(42).
- Marques, C., Quaresma, M., Nakamoto, F., Magalhaes, A., Lucin, G., Thomatieli-Santos., 2021. Does Modern Lifestyle Favor Neuroimmunometabolic Changes? A Path to Obesity. *Frontiers in Nutrition.* 8.
- McGuigan, M., Tatasciore, M., Newton, U., Pettigrew, S., 2009. Eight Weeks of Resistance Training Can Significantly Alter Body Composition in Children Who Are Overweight or Obese. *Journal of Strength and Conditioning Research.* 23(1):80-85.
- McKenna, C., Salvador, A., Keeble, A., Khan, N., de Lisio, M., Konopka, A., et al., 2022. Muscle strength after resistance training correlates to mediators of muscle mass and mitochondrial respiration in middle-aged adults. *J. Appl. Physiol.* 133(3):572-584.
- McKenzie, T., Marshall, S., Sallis, J., Conway, T., 2000. Leisure-Time Physical Activity in School Environments: An Observational Study Using SOPLAY. *Preventive Medicine.* 30:70–77.
- de Meis, L., 2001. Role of the Sarcoplasmic Reticulum Ca²⁺-ATPase on Heat Production and Thermogenesis. *Bioscience Reports.* 21(2):113-137.
- de Melo, D., Anaruma, C., Rodrigues, K., Pereira, R., de Campos, T., Canciglieri, R., et al., 2022. Strength training alters the tissue fatty acids profile and slightly improves the thermogenic pathway in the adipose tissue of obese mice. *Scientific Reports.* 12(6913).
- Methenitis, S., 2018. A Brief Review on Concurrent Training: From Laboratory to the Field. *Sports.* 6(4).
- Misra, A., 2015. Ethnic-Specific Criteria for Classification of Body Mass Index: A Perspective for Asian Indians and American Diabetes Association Position Statement. *Diabetes Technology & Therapeutics.* 17(9):667-671.
- Mizrahi, D., Wakefield, C., Simar, D., Ha, L., McBride, J., Field, P., et al., 2020. Barriers and enablers to physical activity and aerobic fitness deficits among childhood cancer survivors. *Pediatric Blood & Cancer.* 67(7).
- Mohajan, D. & Mohajan, H., 2023. A Study on Body Fat Percentage for Physical Fitness and Prevention of Obesity: A Two Compartement Model. *Munich Personal RePEc Archive.* 117158:1-29.
- Momma, H., Kawakami, R., Honda, T., Sawada, S., 2022. Muscle-strengthening activities are associated with lower risk and mortality in major non-communicable diseases: a systematic review and meta-analysis of cohort studies. *British Journal of Sports Medicine.* 56:755-763.
- Moulin, M., Irwin, J., 2017. An Assessment of Sedentary Time Among Undergraduate Students at A Canadian University. *International Journal of Exercise Science.* 10(8):1116-1129.
- Mudali, S. & Dobs, A., 2004. Effects of testosterone on body composition of the aging male. *Mechanisms of Ageing and Development.* 125:297–304.

- Müller, M., Bosy-Westphal, A., Kutzner, D., Heller, M., 2002. Metabolically active components of fat-free mass and resting energy expenditure in humans: recent lessons from imaging technologies. *The International Association for the Study of Obesity*. 3:113–122.
- Muñoz-Martínez, F., Rubio-Arias, J., Ramos-Campo, D., Alcaraz, P., 2017. Effectiveness of Resistance Circuit-Based Training for Maximum Oxygen Uptake and Upper-Body One-Repetition Maximum Improvements: A Systematic Review and Meta-Analysis. *Sports Medicine*. 47:2553–2568.
- Murabito, J., Pedley, A., Massaro, J., Vasan, R., Eslinger, D., Blease, S., et al., 2015. Moderate-to-Vigorous Physical Activity With Accelerometry is Associated With Visceral Adipose Tissue in Adults. *J. Am. Heart. Assoc.* 4(3).
- Murton, A., Marimuthu, K., Mallinson, J., Selby, A., Smith, K., Rennie, M., 2015. Obesity Appears to Be Associated With Altered Muscle Protein Synthetic and Breakdown Responses to Increased Nutrient Delivery in Older Men, but Not Reduced Muscle Mass or Contractile Function. *Diabetes*. 64(9):3160-3171.
- Nelson, M., Rejeski, W., Blair, S., Duncan, P., Judge, J., King, A., et al., 2007. Physical activity and public health in older adults: Recommendation from the American College of Sports Medicine and the American Heart Association. *Circulation*. 116(9):1094-1105.
- Nie, J. & Sage, E., 2009. SPARC Inhibits Adipogenesis by Its Enhancement of β -Catenin Signaling. *J Biol Chem*. 284(2):1279–1290.
- Nunes, J., Grgic, J., Cunha, P., Ribeiro, A., Schoenfeld, B., de Salles, B., et al., 2020. What influence does resistance exercise order have on muscular strength gains and muscle hypertrophy? A systematic review and metaanalysis.
- Nusdwiningtyas, N., Triangto, K., Alwi, I., Yunus, F., 2021. The Validity and Reliability of Six Minute Walk Test in a 15 Meter Track. *Indojpmr*. 10:57-65.
- O’Sullivan, A., 2009. Does oestrogen allow women to store fat more efficiently? A biological advantage for fertility and gestation. *Obesity Reviews*. 10:168–177.
- Odegaard, J., Ricardo-Gonzalez, R., Eagle, A., Vats, D., Morel, C., Goforth, M., et al., 2008. Alternative M2 Activation of Kupffer Cells by PPAR δ Ameliorates Obesity-Induced Insulin Resistance. *Cell Metabolism*. 7(6):496-507.
- Oh, D. & Lee, J., 2023. Effect of Different Intensities of Aerobic Exercise Combined with Resistance Exercise on Body Fat, Lipid Profiles, and Adipokines in Middle-Aged Women with Obesity. *Int. J. Environ. Res. Public Health*. 20(5).
- de Oliveira, B., Magalhães, E., Bragança, M., Coelho, C., Lima, N., Bettiol, H., et al., 2023. Performance of Body Fat Percentage, Fat Mass Index, and Body Mass Index for Detecting Cardiometabolic Outcomes in Brazilian Adults. *Nutrients*. 15(13).
- Oosthuyse, T. & Bosch, A., 2012. Oestrogen's regulation of fat metabolism during exercise and gender specific effects. *Current Opinion in Pharmacology*. 12(3):363-371.

- Ormsbee, M., Thyfault, J., Johnson, E., Kraus, R., Choi, M., Hickner, R., 2007. Fat metabolism and acute resistance exercise in trained men. *J. Appl. Physiol.* 102:1767-1772.
- Overend, T., Versteegh, T., Thompson, E., Birmingham, T., Vandervoort, A., 2000. Cardiovascular Stress Associated With Concentric and Eccentric Isokinetic Exercise in Young and Older Adults. *The Journals of Gerontology: Series A.* 55(4):B177–B182.
- Pang, B., Chan, W., Chan, C., 2021. Mitochondria Homeostasis and Oxidant/Antioxidant Balance in Skeletal Muscle—Do Myokines Play a Role?. *Antioxidants.* 10(2).
- Pate, R., Saunders, R., Ward, D., Felton, G., Trost, S., Dowda, M., 2003. Evaluation of a Community-based Intervention to Promote Physical Activity in Youth: Lessons From Active Winners. *Am. J. Health Promot.* 17(3):171–182.
- Peirce, V., Carobbio, S., Vidal-Puig, A., 2014. The different shades of fat. *Nature.* 510:76–83.
- de Pergola, G., 2000. The adipose tissue metabolism: role of testosterone and dehydroepiandrosterone. *International Journal of Obesity.* 24(2):S59-S63.
- Phillips, S. & Winett, R., 2010. Uncomplicated Resistance Training and Health-Related Outcomes: Evidence for a Public Health Mandate. *Curr Sports Med Rep.* 9(4):208–213.
- Picoli, C., Gilio, G., Henriques, F., Leal, L., Besson, J., Lopes, M., et al., 2020. Resistance exercise training induces subcutaneous and visceral adipose tissue browning in Swiss mice. *Journal of Applied Physiology.*
- Piepoli, M., Hoes, A., Agewall, S., Albus, C., 2016. 2016 European Guidelines on cardiovascular disease prevention in clinical practice. *European Heart Journal.*
- Pillerová, M., Borbélyová, V., Hodosy, J., Riljak, V., Renczés, E., Frick, K., et al., 2021. On the role of sex steroids in biological functions by classical and non-classical pathways. An update. *Front. Neuroendocrinol.* 62(100926).
- Piqueras, P., Ballester, A., Durá-Gil, J., Martinez-Hervas, S., Redón, J., Real, J., 2021. Anthropometric Indicators as a Tool for Diagnosis of Obesity and Other Health Risk Factors: A Literature Review. *Front. Psychol.* 12.
- van der Ploeg, H. & Bull, F., 2020. Invest in physical activity to protect and promote health: the 2020 WHO guidelines on physical activity and sedentary behaviour. *International Journal of Behavioral Nutrition and Physical Activity.* 17(145).
- Porter, C., Reidy, P., Bhattarai, N., Sidossis, L., Rasmussen, B., 2014. Resistance Exercise Training Alters Mitochondrial Function in Human Skeletal Muscle. *Med Sci Sports Exerc.* 47(9):1922–1931.
- Plowman, S. & Smith, D., 2011. *Exercise Physiology for Health, Fitness, and Performance.* 3rd. ed. Lippincott Williams & Wilkins.
- Pupim, L., Martin, C., Ikizler, T., 2013. Assessment of Protein and Energy Nutritional Status. *Nutritional Management of Renal Disease.* 137-158.
- Purwanto, P. & Nasrulloh, A., 2017. Efektivitas Latihan Beban dengan Metode *Circuit Weight Training* dengan Super Set Terhadap Penurunan Berat Badan dan Prosentase Lemak. *Universitas Negeri Yogyakarta.*

- Rachele, J., McPhail, S., Washington, T., Cuddihy, T., 2012. Practical physical activity measurement in youth: a review of contemporary approaches. *World J Pediatr.* 8(3):207-216.
- Raio, C., Orederu, T., Palazzolo, L., Shurick, A., Phelps, E., 2013. Cognitive emotion regulation fails the stress test. *Proc. Natl. Acad. Sci. USA.* 110(37):15139–15144.
- Raj, D., Pecoits-Filho, R., Kimmel, P., 2015. Inflammation in Chronic Kidney Disease. *Chronic Renal Disease.* 199-212.
- Raji, A., Seely, E., Arky, R., Simonson, D., 2001. Body Fat Distribution and Insulin Resistance in Healthy Asian Indians and Caucasians. *The Journal of Clinical Endocrinology and Metabolism.* 86(11):5366-5371.
- Ramos-Campo, D., Caravaca, L., Martínez-Rodríguez, A., Rubio-Arias, J., 2021. Effects of Resistance Circuit-Based Training on Body Composition, Strength and Cardiorespiratory Fitness: A Systematic Review and Meta-Analysis. *Biology (Basel).* 10(5).
- Rao, C., Darshan, B., Das, N., Rajan, V., Bhogun, M., Gupta, A., 2012. Practice of Physical Activity among Future Doctors: A Cross Sectional Analysis. *Int J Prev Med.* 3(5):365–369.
- Rao, R., Long, J., White, J., Svensson, K., Lou, J., Lokurkar, I., et al., 2014. Meteorin-like Is a Hormone that Regulates Immune-Adipose Interactions to Increase Beige Fat Thermogenesis. *Cell.* 157(6):1279-1291.
- Reiling, J. & Sabatini, D., 2006. Stress and mTOR signaling. *Oncogene.* 25(48):6373-6383.
- Reilly, S., Hung, C., Ahmadian, M., Zhao, P., Keinan, O., Gomez, A., et al., 2020. Catecholamines suppress fatty acid re-esterification and increase oxidation in white adipocytes via STAT-3. *Nat. Metab.* 2(7):620–634.
- Ringstad, N., 2016. A Controlled Burn: Sensing Oxygen to Tune Fat Metabolism. *Cell Reports.* 14(7):1569-1570.
- Rinonapoli, G., Pace, V., Ruggiero, C., Ceccarini, P., Bisaccia, M., Meccariello, L., et al., 2021. Obesity and Bone: A Complex Relationship. *Int. J. Mol. Sci.* 22(13662).
- Robciuc, M., Kivelä, R., Williams, I., de Boer, J., van Dijk, T., Elamaa, H., et al., 2016. VEGFB/VEGFR1-Induced Expansion of Adipose Vasculature Counteracts Obesity and Related Metabolic Complications. *Cell Metabolism.* 23(4):712-724.
- Roberts, L., Boström, P., O’Sullivan, J., Schinzel, R., Lewis, G., Dejam, A., et al., 2014. β -Aminoisobutyric Acid Induces Browning of White Fat and Hepatic β -Oxidation and Is Inversely Correlated with Cardiometabolic Risk Factors. *Cell Metabolism.* 19(1):96-108.
- Rodgers, J., King, K., Brett, J., Cromie, M., Charville, G., Maguire, K., et al., 2014. mTORC1 controls the adaptive transition of quiescent stem cells from G0 to Galert. *Nature.* 510(7505):393–396.
- Rodríguez, A., Becerril, S., Ezquerro, S., Mendez-Gimenez, L., Fruhbeck, G., 2016. Crosstalk between adipokines and myokines in fat browning. *Acta Physiologica.*

- Rodríguez-Monforte, M., Sánchez, E., Barrio, F., Costa, B., Flores-Mateo, G., 2017. Metabolic syndrome and dietary patterns: a systematic review and meta-analysis of observational studies. *European Journal of Nutrition*. 56:925–947.
- Rogatzki, M., Ferguson, B., Goodwin, M., Gladden, L., 2015. Lactate is always the end product of glycolysis. *Front. Neurosci*. 9(22).
- Roh, E. & Choi, K., 2020. Health Consequences of Sarcopenic Obesity: A Narrative Review. *Front. Endocrinol*. 11.
- Rose, S. & Rothstein, J., 1982. Muscle Mutability. 62(12):1773-1787.
- Ruskoaho, H., Lang, R., Toth, M., Ganten, D., Unger, T., 1987. Release and regulation of atrial natriuretic peptide (ANP). *European Heart Journal*. 8:99-109.
- de Salles, B., Simão, R., Miranda, F., Novaes, J., Lemos, A., Willardson, J., 2009. Rest interval between sets in strength training. *Sports. Med*. 39(9):765-77.
- Saely, C., Geiger, K., Drexel, H., 2012. Brown versus White Adipose Tissue: A Mini-Review. *Gerontology*. 58:15-23.
- Sakuma, K. & Yamaguchi, A., 2013. Sarcopenic Obesity and Endocrinal Adaptation with Age. *Int. J. Endocrinol*.
- Saavedra-Peña, R., Taylor, N., Flannery, C., Rodeheffer, M., 2023. Estradiol cycling drives female obesogenic adipocyte hyperplasia. *Cell Reports*. 42(4)
- Scarpulla, R., 2008. Transcriptional paradigms in mammalian mitochondrial biogenesis and function. *Physiol Rev*. 88(2):611-38.
- Schiaffino, S., Reggiani, C., Akimoto, T., Blaauw, B., 2021. Molecular Mechanisms of Skeletal Muscle Hypertrophy. *Journal of Neuromuscular Diseases*. 8(2):169-183.
- Schoenfeld, B., Grgic, J., Van Every, D., Plotkin, D., 2021. Loading Recommendations for Muscle Strength, Hypertrophy, and Local Endurance: A Re-Examination of the Repetition Continuum. *Sports*. 9(32).
- Schorr, M., Dichtel, L., Gerweck, A., Valera, R., Torriani, M., Miller, K., et al., 2018. Sex differences in body composition and association with cardiometabolic risk. *Biol. Sex. Differ*. 9(28).
- Sepe, A., Tchkonja, T., Thomou, T., Zamboni, M., Kirkland, J., 2012. Aging and Regional Differences in Fat Cell Progenitors – A Mini-Review. *Gerontology*. 57(1):66–75.
- Serrano, A., Baeza-Raja, B., Perdiguero, E., Jardí, M., Muñoz-Cánoves, P., 2008. Interleukin-6 Is an Essential Regulator of Satellite Cell-Mediated Skeletal Muscle Hypertrophy. *Cell Metabolism*. 7(1):33-44.
- Shah, N., Cader, M., Andrews, B., McCabe, R., Stewart-Brown, S., 2021. Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS): performance in a clinical sample in relation to PHQ-9 and GAD-7. *Health and Quality of Life Outcomes*. 19(260).
- Shakespear-Druery, J., De Cocker, K., Biddle, S., Gavilán-Carrera, B., Segura-Jiménez, V., Bennie, J., 2021. Assessment of muscle-strengthening exercise in public health surveillance for adults: A systematic review. *Preventive Medicine*. 148.

- Shakespear-Druery, J., De Cocker, K., Biddle, S., Bennie, J., 2022. Muscle-Strengthening Exercise Questionnaire (MSEQ): an assessment of concurrent validity and test-retest reliability. *BMJ Open Sport & Exercise Medicine*. 8.
- Shi, J., Gao, M., Xu, X., Zhang, X., Yan, J., 2022. Associations of muscle-strengthening exercise with overweight, obesity, and depressive symptoms in adolescents: Findings from 2019 Youth Risk Behavior Surveillance system. *Front. Psychol.* 13(980076).
- Shoelson, S., Lee, J., Goldfine, A., 2006. Inflammation and insulin resistance. *J Clin Invest.* 116(7):1793–1801.
- Shungin, D., Winkler, T., Croteau-Chonka, D., Ferreira, T., Locke, A., Mägi, R., et al., 2015. New genetic loci link adipose and insulin biology to body fat distribution. *Nature*. 518:187–196.
- Shuster, A., Patlas, M., Pinthus, J., Mourtzakis, M., 2012. The clinical importance of visceral adiposity: a critical review of methods for visceral adipose tissue analysis. *Br. J. Radiol.* 85(1009):1–10.
- Silveira, E., Mendonca, C., Delpino, F., Souza, G., Rosa, L., de Oliveira, C., et al., 2022. Sedentary Behavior, Physical Inactivity, Abdominal Obesity and Obesity in Adults and Older Adults: A Systematic Review and Meta-Analysis. *Clinical Nutrition ESPEN*. 50:63-73.
- Silveira, E., Vaseghi, G., Santos, A., Kliemann, N., Masoudkibir, F., Noll, M., et al., 2020. Visceral Obesity and Its Shared Role in Cancer and Cardiovascular Disease: A Scoping Review of the Pathophysiology and Pharmacological Treatments. *Int. J. Mol. Sci.* 21(23).
- Simonides, W., Thelen, M., van der Linden, C., Muller, A., van Hardeveld, C., 2001. Mechanism of Thyroid-Hormone Regulated Expression of the SERCA Genes in Skeletal Muscle: Implications for Thermogenesis. *Bioscience Reports*. 21(2):139-154.
- Simsolo, R., Ong, J., Kern, P., 1993. The regulation of adipose tissue and muscle lipoprotein lipase in runners by detraining. *J. Clin. Invest.* 92(5):2124–2130.
- Sitoayu, L., Choirunnisa, S., Pakpahan, T., Rosdyaningurm, S., 2020. Nutritional Knowledge, Dietary Assessment, Physical Activity, Body Fat Percentage, and Nutritional Status of Police Officers. *JHE*. 5(1).
- Sjögren, J., Li, M., Björntorp, P., 1995. Androgen hormone binding to adipose tissue in rats. *Biochimica et Biophysics Acta*. 1244:117-120.
- Smail, K. & Horvat, M., 2006. Relationship of Muscular Strength on Work Performance in High School Students with Mental Retardation. *Education and Training in Developmental Disabilities*. 41(4):410-419.
- Son, J., Kim, J., Kim, H., Yoon, D., Kim, J., Song, H., et al., 2016. Effect of resistance ladder training on sparc expression in skeletal muscle of hindlimb immobilized rats. *Muscle & Nerve*. 53(6):951-957.
- Song, H., Guan, Y., Zhang, L., Li, K., Dong, C., 2010. SPARC interacts with AMPK and regulates GLUT4 expression. *Biochemical and Biophysical Research Communications*. 396(4):961-966.
- Song, W., Kim, D., Kim, H., Oh, S., Kim, J., Woo, S., et al., 2012. IL-15 expression in skeletal muscle by resistance exercise training in type 2 diabetic rats. *Journal of Science and Medicine in Sport*. 15(S29).

- Sowers, M. & Tisch, J., 2000. CHAPTER 16 - Insulin Resistance, Body Weight, Obesity, Body Composition, and the Menopausal Transition. *Menopause*. 245-260.
- Speakman, J. & Selman, C., 2003. Physical activity and resting metabolic rate. *Proceedings of the Nutrition Society*. 62:621–634.
- Speakman, J., Rance, K., Johnstone, A., 2008. Polymorphisms of the FTO Gene Are Associated With Variation in Energy Intake, but not Energy Expenditure. *Obesity*. 16(8):1961-1965.
- Steiner, B. & Berry, D., 2022. The Regulation of Adipose Tissue Health by Estrogens. *Front. Endocrinol*. 13.
- Strain, T., Brage, S., Sharp, S., Richards, J., Tainio, M., Ding, D., 2020. Use of the prevented fraction for the population to determine deaths averted by existing prevalence of physical activity: a descriptive study. *The Lancet Global Health*. 8(7):E920-E930.
- Strasser, B. & Schobersberger, W., 2011. Evidence for Resistance Training as a Treatment Therapy in Obesity. *Journal of Obesity*.
- Stuckler, D., McKee, M., Ebrahim, S., Basu, S., 2012. Manufacturing Epidemics: The Role of Global Producers in Increased Consumption of Unhealthy Commodities Including Processed Foods, Alcohol, and Tobacco. *PLoS Med*. 9(6).
- Suganami, T., Nishida, J., Ogawa, Y., 2005. A Paracrine Loop Between Adipocytes and Macrophages Aggravates Inflammatory Changes. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 25:2062–2068.
- Sumsuzzman, D., Jin, Y., Choi, J., Yu, J., Lee, T., Hong, Y., 2019. Pathophysiological role of endogenous irisin against tumorigenesis and metastasis: Is it a potential biomarker and therapeutic ?. *Tumor Biology*. 1-9.
- Sun, H., Sherrier, M., Li, H., 2021. Skeletal Muscle and Bone – Emerging Targets of Fibroblast Growth Factor-21. *Front. Physiol*. 12.
- Suryoko, A., 2015. Pengaruh Latihan Circuit Training Terhadap Vo2 Max, Indeks Massa Tubuh (IMT) dan Persentase Lemak Tubuh Member Fitness Ros-In Hotel Yogyakarta. *Universitas Negeri Yogyakarta*.
- Swift, D., McGee, J., Earnest, C., Carlisle, E., Nygard, M., Johannsen, N., 2018. The Effects of Exercise and Physical Activity on Weight Loss and Maintenance. *Progress in Cardiovascular Diseases*. 61(2):206-213.
- Sylvia, L., Bernstein, E., Hubbard, J., Keating, L., Anderson, E., 2014. A Practical Guide to Measuring Physical Activity. *J Acad Nutr Diet*. 114(2):199–208.
- Tan, L., Zhu, H., He, H., Wu, K., Li, J., Chen, X., et al., 2014. Replication of 6 Obesity Genes in a Meta-Analysis of Genome-Wide Association Studies from Diverse Ancestries. *PLoS One*. 9(5).
- Tas, A., Atabey, M., Gokcen, P., Ozel, M., Karagoz, Z., Ugur, K., et al., 2022. Leptin/Melanocortin pathway hormones in obese patients after laparoscopic sleeve gastrectomy. *European Review for Medical and Pharmacological Sciences*. 26:1484-1491.
- Taylor, E., 2021. The complex role of adipokines in obesity, inflammation, and autoimmunity. *Clin Sci (Lond)*. 135(6):731–752.

- Tcymbal, A., Andreasyan, D., Whiting, S., Mikkelsen, B., Rakovac, I., Breda, J., 2020. Prevalence of Physical Inactivity and Sedentary Behavior Among Adults in Armenia. *Frontiers in Public Health*. 8(157).
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., et al., 2007. The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health and Quality of Life Outcomes*. 5(63).
- Thomas, E., Frost, G., Taylor-Robinson, S., Bell, J., 2012. Excess body fat in obese and normal-weight subjects. *Nutrition Research Reviews*. 25(1):150–161.
- Thornton, S., 2016. Increased Hydration Can Be Associated with Weight Loss. *Front. Nutr.* 3(18).
- Tiwari, S. & Siddiqi, S., 2012. Intracellular Trafficking and Secretion of VLDL. *Arteriosclerosis, Thrombosis, and Vascular Biology*. 32(5):1079-1086.
- To, Q., Stanton, R., Schoeppe, S., Doering, T., Vandelanotte, C., 2022. Differences in physical activity between weekdays and weekend days among U.S. children and adults: Cross-sectional analysis of NHANES 2011–2014 data. *Prev. Med. Rep.* 28.
- Tomiyama, A., 2019. Stress and Obesity. *Annual Review of Psychology*. 70:703–718.
- Townsend, K. & Tseng, Y., 2012. Brown adipose tissue. *Adipocyte*. 1(1):13–24.
- Trapp, E., Chisholm, D., Freund, J., Boutcher, S., 2008. The effects of high-intensity intermittent exercise training on fat loss and fasting insulin levels of young women. *International Journal of Obesity*. 32:684–691.
- Trost, S., 2001. Objective Measurement of Physical Activity in Youth: Current Issues, Future Directions. *Exercise and Sport Sciences Reviews*. 29(1):32-36.
- Trost, S., McIver, K., Pate, R., 2005. Conducting Accelerometer-Based Activity Assessments in Field-Based Research. *Medicine and science in sports and exercise*. 37(11).
- Tsania, M., Wibowo, R., Sofyana, M., Aulia, A., 2023. Reliability and Validity Questionnaire of Indonesian Physical Activity, Sedentary Behavior, and Sleep Habits (I-PASS).
- Ucan, Y., 2013. Effects of Different Types of Exercises on Body Composition in Young Men and Women. *Life Science Journal*. 10(3).
- Ulbricht, A., Arndt, V., Höhfeld, J., 2013. Chaperone-assisted proteostasis is essential for mechanotransduction in mammalian cells. *Communicative & Integrative Biology*. 6(4).
- Vafiadaki, E., Arvanitis, D., Sanoudou, D., 2015. Muscle Lim Protein: master regulator of cardiac and skeletal muscle function. *Gene*. 566(1):1–7.
- Vargas, V., de Lira, C., Vancini, R., Rayes, A., Andrade, M., 2018. Fat mass is negatively associated with the physiological ability of tissue to consume oxygen. *The Journal of Physical Education*. 24(4).
- Vasold, K., Parks, A., Phelan, D., Pontifex, M., Pivarnik, J., 2019. Reliability and Validity of Commercially Available Low-Cost Bioelectrical Impedance Analysis. *Int. J. Sport. Nutr. Exerc. Metab.* 29(4):406–410.

- Vij, V. & Joshi, A., 2013. Effect of 'Water Induced Thermogenesis' on Body Weight, Body Mass Index and Body Composition of Overweight Subjects. *J. Clin. Diagn. Res.* 7(9):1894–1896.
- Wackerhage, H., Schoenfeld, B., Hamilton, D., Lehti, M., Hulmi, J., 2018. Stimuli and sensors that initiate skeletal muscle hypertrophy 2 following resistance exercise. *Journal of Applied Physiology*.
- Waldén, T., Hansen, I., Timmons, J., Cannon, B., Nadergaard, J., 2014. Recruited vs. nonrecruited molecular signatures of brown, “brite,” and white adipose tissues. *American Journal of Physiology*. 302(1):E19-E31.
- Wang, Y., McPherson, K., Marsh, T., Gortmaker, S., Brown, M., 2011. Health and economic burden of the projected obesity trends in the USA and the UK. *Obesity*. 378(9793):815-825.
- Wang, Y., Yang, C., Gu, Q., Sims, M., Gu, W., Pfeffer, L., et al., 2015. KLF4 Promotes Angiogenesis by Activating VEGF Signaling in Human Retinal Microvascular Endothelial Cells. *PLoS ONE*. 10(6).
- Wang, Z., Yue, Y., Liu, Z., Yang, L., Li, H., Li, Z., et al., 2019. Genome-Wide Analysis of the FABP Gene Family in Liver of Chicken (*Gallus gallus*): Identification, Dynamic Expression Profile, and Regulatory Mechanism. *Int. J. Mol. Sci.* 20(23).
- Warwick Medical School, 2023. *Collect, score, analyse and interpret WEMWBS*. University of Warwick. United Kingdom.
- Watt, M. & Cheng, Y., 2017. Triglyceride metabolism in exercising muscle. *BBA - Molecular and Cell Biology of Lipids*.
- Wasyluk, W., Wasyluk, M., Zwolak, A., Luczyk, R., 2019. Limits of body composition assessment by bioelectrical impedance analysis (BIA). *Journal of Education, Health and Sport*. 9(8):35-44.
- Weinstein, I., Cook, G., Heimberg, M., 1986. Regulation by oestrogen of carnitine palmitoyltransferase in hepatic mitochondria. *Biochem. J.* 593-596.
- Weisberg, S., McCann, D., Desai, M., Rosenbaum, M., Leibel, R., Ferrante, Jr., A., 2003. Obesity is associated with macrophage accumulation in adipose tissue. *J Clin Invest*. 112(12):1796–1808.
- Welk, G., McClain, J., Eisenmann, J., Wickel, E., 2012. Field Validation of the MTI Actigraph and BodyMedia Armband Monitor Using the IDEEA Monitor. *Obesity*. 15(4):918-928.
- Wells, J. & Fewtrell M., 2006. Measuring body composition. *Arch Dis Child*. 91(7):612–617.
- Westerterp, K., 2009. Assessment pf physical activity: a critical appraisal. *Eur. J. Appl. Physiol*. 105:823-828.
- Westerterp, K., 2013. Physical activity and physical activity induced energy expenditure in humans: measurement, determinants, and effects. *Front. Physiol*. 4.
- Wewege, M., Desai, I., Honey, C., Coorie, B., Jones, M., Clifford, B., et al., 2022. The Effect of Resistance Training in Healthy Adults on Body Fat Percentage, Fat Mass and Visceral Fat: A Systematic Review and Meta-Analysis. *Sports Medicine*. 52:287-300.

- Winpenny, E., Smith, M., Penney, T., Foubister, C., Guaglino, J., Love, R., et al., 2020. Changes in physical activity, diet, and body weight across the education and employment transitions of early adulthood: A systematic review and meta-analysis. *Obesity Reviews*. 1–13.
- Woessner, M., Tacey, A., Levinger-Limor, A., Parker, A., Levinger, P., Levinger, I., 2021. The Evolution of Technology and Physical Inactivity: The Good, the Bad, and the Way Forward. *Front. Public Health*. 9.
- Wohlgemuth, K., Arieta, L., Brewer, G., Hoselton, A., Gould, L., Smith-Ryan, A., 2021. Sex differences and considerations for female specific nutritional strategies: a narrative review. *Journal of the International Society of Sports Nutrition*. 18(27).
- World Health Organization, 1998. *Preventing and Managing the Global Epidemic of Obesity*. World Health Organization, Geneva.
- World Health Organization, 2000. *The Asia-Pacific perspective: Redefining obesity and its treatment*. World Health Organization, Geneva.
- World Health Organization, 2008. *Waist circumference and waist-hip ratio*. World Health Organization, Geneva.
- World Health Organization, 2020. *WHO Guidelines on Physical Activity and Sedentary Behaviour*. World Health Organization, Geneva.
- World Health Organization, 2021. *Obesity and overweight*. World Health Organization, Geneva.
- World Health Organization, 2022. *Physical activity*. World Health Organization, Geneva.
- Wu, Y., Duan, H., Tian, X., Xu, C., Wang, W., Jiang, W., et al., 2018. Genetics of Obesity Traits: A Bivariate Genome-Wide Association Analysis. *Front Genet*. 9(179).
- Xiao, C., Goldgof, M., Gavrilova, O., Reitman, M., 2015. Anti-obesity and metabolic efficacy of the β 3-adrenergic agonist, CL316243, in mice at thermoneutrality compared to 22°C. *Obesity (Silver Spring)*. 23(7):1450–1459.
- Yang, Y., 2019. An Overview of Current Physical Activity Recommendations in Primary Care. *Korean Journal of Family Medicine*. 40:135-142.
- Yao, J., Wu, D., Qiu, Y., 2022. Adipose tissue macrophage in obesity-associated metabolic diseases. *Front. Immunol*. 13.
- Yaaqoub, C. & Houssein, Z., 2018. The Relationship between Maximum Oxygen Consumption (VO2 Max) and Body Fat Percentage of the Male Secondary School Pupils (15-18 Years). *Journal of Health Science*. 6:274-277.
- Yen, C. & Farese, R., 2006. Fat breakdown: A function for CGI-58 (ABHD5) provides a new piece of the puzzle. *Cell Metabolism*. 3(5):305-307.
- Yin, J., Gao, Z., He, Q., Zhou, D., Guo, Z., Ye, J., 2009. Role of hypoxia in obesity-induced disorders of glucose and lipid metabolism in adipose tissue. *Am. J. Physiol. Endocrinol. Metab*. 296(2):E333–E342.
- Yoshida, T. & Delafontaine, P., 2020. Mechanisms of IGF-1-Mediated Regulation of Skeletal Muscle Hypertrophy and Atrophy. *Cells*. 9(9).
- Yumuk, V., Tsigos, C., Fried, M., Schindler, K., Busetto, L., Micic, D., et al., 2015. European Guidelines for Obesity Management in Adults. *Obes. Facts*. 8(6):402–424.

- Zanuso, S., Bergamin, M., Jimenez, A., Pugliese, G., D'Errico, V., Nicolucci, A., et al., 2016. Determination of metabolic equivalents during low- and high-intensity resistance exercise in healthy young subjects and patients with type 2 diabetes. *Biol Sport*. 33(1):77–82.
- Zatterale, F., Longo, M., Naderi, J., Raciti, G., Desiderlo, A., Miele, C., et al., 2020. Chronic Adipose Tissue Inflammation Linking Obesity to Insulin Resistance and Type 2 Diabetes. *Frontiers in Physiology*. 10(1807):1-20.
- Zeng, Q., Dong, S., Sun, X., Xie, J., Cui, Y., 2012. Percent body fat is a better predictor of cardiovascular risk factors than body mass index. *Braz. J. Med. Biol. Res*. 45(7):591–600.
- Zhang, Y., Zhang, Y., Ye, W., Korivi, M., 2021. Low-to-Moderate-Intensity Resistance Exercise Effectively Improves Arterial Stiffness in Adults: Evidence From Systematic Review, Meta-Analysis, and Meta-Regression Analysis. *Frontiers in Cardiovascular Medicine*. 8.
- Zhao, J., Su, Z., Qu, C., Dong, Y., 2017. Effects of 12 Weeks Resistance Training on Serum Irisin in Older Male Adults. *Front. Physiol*. 8(171).
- Zhu, Y., Wang, Z., Maruyama, H., Onoda, K., Huang, Q., 2022. Body Fat Percentage and Normal-Weight Obesity in the Chinese Population: Development of a Simple Evaluation Indicator Using Anthropometric Measurements. *Int. J. Environ. Res. Public Health*. 19(7).
- Zunner, B., Wachsmuth, N., Eckstein, M., Scherl, L., Schierbauer, J., Haupt, S., et al., 2022. Myokines and Resistance Training: A Narrative Review. *Int J Mol Sci*. 23(7).