- 10. K. Mulsow, et al. "Quantifizierung des Mistellektins I aus Mistelextrakt-Fertigarzneimitteln [Quantification of mistletoe lectin I from mistletoe extract finished medicinal products]," ZPT—Zeitschrift für Phytotherapie, 2017; 38:148-151.
- Original data set included a Helixor Pini batch with a higher reading of 2,100 ng/mL and 2,200 ng/mL of A-Chain and A-B Chain mistletoe lectins, respectively.
- 12. M. Girke, Internal Medicine: Foundations and therapeutic concepts of Anthroposophic Medicine (Berlin: Salumed-Verlag, 2016), chap. 14.3.5.6.
- 13. AUTHOR NOTE: This section is composed of general anthroposophic recommendations accumulated through decades of clinical practice, as well as from Vademecum of Anthroposophic Medicines (Association of Anthroposophic Medicine in Germany [GAAD], 2019), pp. 42-110.

 J. Wilkens and G. Böhm, Mistletoe Therapy for Cancer, Op. cit.
- 14. Vademecum of Anthroposophic Medicines. Association of Anthroposophic Medicine in Germany (GAAD), 2019, (chap. 5).
- 15. Ibid., chap. 9.
- M. Girke, Internal Medicine: Foundations and therapeutic concepts of Anthroposophic Medicine (Berlin: Salumed-Verlag, 2016), chap. 14.3.5.6.
- 17. Vademecum of Anthroposophic Medicines (Association of Anthroposophic Medicine in Germany |GAAD|, 2019), chap. 5.
- 18. R. Steiner, Introducing Anthroposophical Medicine (CW 312). Op. cit.
- 19. J. U. Umeafoekwe, et al. "Pulmonary effects of grain-dust observed in feedmill workers," Proceedings of the 6th National Conference of the Society for Occupational Safety and Environmental Health (SOSEH). Nov. 3-6, 2010. Princess Alexandra Auditorium, University of Nigeria, Nsukka, Enugu State, Nigeria.
- 20. J. Wilkens and G. Böhm, Mistletoe Therapy for Cancer, Op. cit., p. 53.
- 21. T. M. Dudenkov, et al. "SLCO1BI polymorphisms and plasma estrone conjugates in postmenopausal women with ER+ breast cancer: Genomewide association studies of the estrone pathway," *Breast Cancer Research and Treatment*, vol. 164,1 (2017): 189-99. doi:10.1007/s10549-017-4243-3.
- 22. C. A. Thomson, et al. "Chemopreventive properties of 3,3'-diindolylmethane in breast cancer: Evidence from experimental and human studies,"

 Nutrition Reviews, vol. 74,7 (2016): 432-43. doi:10.1093/nutrit/nuw010.
- 23. J. Wilkens and G. Böhm. Mistletoe Therapy for Cancer, Op. cit., p. 75.

CHAPTER 5

- 1. N. Winters and J. H. Higgins Kelley. The Metabolic Approach to Cancer Care: Integrating Deep Nutrition, the Ketogenic Diet, and Nontoxic Bioindividualized Therapies, Hartford, VT: Chelsea Green, 2017.
- 2. H. A. Coller. "Is cancer a metabolic disease?" The American Journal of Pathology, vol. 184,1 (2014): 4-17. doi:10.1016/j.ajpath.2013.07.035.
- 3. G. P. Dunn, et al. "The immunobiology of cancer immunosurveillance and immunoediting," *Immunity*, vol. 21, no. 2, 2004, pp. 137–48.

- 4. F. M. Burnet. "The concept of immunological surveillance," *Prog. Exp. Tumor Res.*, 1970;13:1-27.
- 5. D. D. Chaplin. "Overview of the immune response," Journal of Allergy and Clinical Immunology, vol. 125,2 Suppl 2 (2010): S3-23. doi:10.1016/j.jaci.2009.12.980.
- 6. H. Gonzalez, et al. "Roles of the immune system in cancer: From tumor initiation to metastatic progression," Genes and Development, vol. 32,19-20 (2018): 1267-1284. doi:10.1101/gad.314617.118.
- 7. A. C. West, et al. "An intact immune system is required for the anticancer activities of histone deacetylase inhibitors," *Cancer Research*, Dec. 15, 2013; 73(24):7265-7276. doi:10.1158/0008-5472.CAN-13-0890.
- 8. A. A. Shafi and K. E. Knudsen, "Cancer and the circadian clock," Cancer Res., Aug. 1 2019 79 (15) 3806-14. doi:10.1158/0008-5472.CAN-19-0566.
- 9. Salavaty, Abbas. "Carcinogenic effects of circadian disruption: an epigenetic viewpoint," *Chinese Journal of Cancer*, vol. 34,9 375–83. 8 Aug. 2015, doi:10.1186/s40880-015-0043-5.
- 10. G. Sulli, et al. "Interplay between circadian clock and cancer: New frontiers for cancer treatment." *Trends in Cancer*, vol. 5,8 (2019): 475–94. doi:10.1016/j.trecan.2019.07.002.
- J. K. Kiecolt-Glaser and R. Glaser. "Psychoneuroimmunology and health consequences: Data and shared mechanisms," *Psychosomatic Medicine*, vol. 57,3 (1995): 269–74. doi:10.1097/00006842-199505000-00008.
- 12. R. H. Bonneau, et al. "Twenty years of psychoneuroimmunology and viral infections in brain, behavior, and immunity," *Brain, Behavior, and Immunity*, vol. 21,3 (2007): 273-80. doi:10.1016/j.bbi.2006.10.004.
- 13. E. Walter and M. Scott. "The life and work of Rudolf Virchow 1821–1902: Cell theory, thrombosis and the sausage duel," *Journal of the Intensive Care Society*, vol. 18,3 (2017): 234–35. doi:10.1177/1751143716663967.
- 14. M. J. Bissell. "Architecture is the message: The role of extracellular matrix and 3-d structure in tissue-specific gene expression and breast cancer," The Pezcoller Foundation Journal: News from the Pezcoller Foundation World, vol. 16,29 (2007): 2-17.
- 15. C. M. Nelson, et al. "Of extracellular matrix, scaffolds, and signaling: tissue architecture regulates development, homeostasis, and cancer," Annual Review of Cell and Developmental Biology, vol. 22 (2006): 287-309. doi:10.1146/annurev.cellbio.22.010305.104315.
- 16. M. Song, et al. "Neutrophil-to-lymphocyte ratio and mortality in the United States general population," *Scientific Reports*, vol. 11,1 464. 11 Jan. 2021, doi:10.1038/s41598-020-79431-7.
- 17. M. A. Cupp, et al. "Neutrophil to lymphocyte ratio and cancer prognosis: An umbrella review of systematic reviews and meta-analyses of observational studies," *BMC Medicine*, vol. 18,1 360. 20 Nov. 2020, doi:10.1186/s12916-020-01817-1.
- 18. Y. Pascual-González, et al. "Defining the role of neutrophil-to-lymphocyte ratio in COPD: A systematic literature review." *International Journal of Chronic Obstructive Pulmonary Disease*, vol. 13 3651-62. Nov. 5, 2018, doi:10.2147/COPD.S178068.

- 19. M. A. Cupp, et al. "Neutrophil to lymphocyte ratio and cancer prognosis: An umbrella review of systematic reviews and meta-analyses of observational studies," *BMC Medicine*, 18, 360 (2020). https://doi.org/10.1186/s12916-020-01817-1.
- 20. J. Fest, et al. "The neutrophil-to-lymphocyte ratio is associated with mortality in the general population: The Rotterdam study." European Journal of Epidemiology, vol. 34,5 (2019): 463-70. doi:10.1007/s10654-018-0472-y.
- 21. M. U. Mushtaq, et al. "Prognostic significance of neutrophil-to-lymphocyte ratio and lymphocyte-to-monocyte ratio in myelodysplastic syndromes," Journal of Clinical Oncology, 2016 34:15; suppl, 7062.
- 22. S. Mallappa, et al. "Preoperative neutrophil to lymphocyte ratio >5 is a prognostic factor for recurrent colorectal cancer." Colorectal Disease: The Official Journal of the Association of Coloproctology of Great Britain and Ireland, vol. 15,3 (2013): 323-28. doi:10.1111/codi.12008.
- 23. G. Moon, et al. "Prediction of late recurrence in patients with breast cancer: Elevated neutrophil to lymphocyte ratio (NLR) at 5 years after diagnosis and late recurrence," *Breast Cancer* (Tokyo), vol. 27,1 (2020): 54-61. doi:10.1007/s12282-019-00994-z.
- 24. M. Gago-Dominguez, et al. "Neutrophil to lymphocyte ratio and breast cancer risk: Analysis by subtype and potential interactions," *Scientific Reports*, 10, 13203 (2020). https://doi.org/10.1038/s41598-020-70077-z.
- 25. M. U. Mushtaq, et al. "Prognostic significance of neutrophil-to-lymphocyte ratio and lymphocyte-to-monocyte ratio in myelodysplastic syndromes," *Journal of Clinical Oncology*, 2016 34:15; suppl, 7062.
- 26. G. Leone, et al. "The incidence of secondary leukemias," *Haematologica*, 1999 Oct;84(10):937-45. PMID: 10509043.
- 27. B. Zhang, et al. "How breast cancer chemotherapy increases the risk of leukemia: Thoughts about a case of diffuse large B-cell lymphoma and leukemia after breast cancer chemotherapy," Cancer Biology and Therapy, vol. 17,2 (2016): 125-28. doi:10.1080/15384047.2016.1139233.
- 28. AUTHOR NOTE: This effect on neutrophil and leukocyte numbers is primarily a clinically observed effect, but a fine discussion of this may also be seen here: C. Saha. "Unravelling the therapeutic intervention of inflammation and cancer by Viscum album: Understanding its anti-inflammatory and immunostimulatory properties," Biotechnology, Université de Technologie de Compiègne, 2015. English. NNT: 2015COMP2210. HAL ID tel-01214953.
- 29. AUTHOR NOTE: IL-6 is a marker of general inflammation that does not negate the use of VAE. In fact, VAE lowers that value. It is IL-8, however, that may negate our ability to use VAE, until we get IL-8 under control.
- 30. M. F. Sanmamed, et al. "Serum Interleukin-8 reflects tumor burden and treatment response across malignancies of multiple tissue origins," *Clin. Cancer Res.*, 20(22) Nov. 15, 2014, 5697-707.
- 31. R. Huber, et al. "Mistletoe treatment induces GM-CSF- and IL-5 production by PBMC and increases blood granulocyte- and eosinophil counts: A placebo-controlled randomized study in healthy subjects," European Journal of Medical Research, vol. 10,10 (2005): 411-18.

- 32. J. L. Sylman, et al. "A temporal examination of platelet counts as a predictor of prognosis in lung, prostate, and colon cancer patients."

 Scientific Reports, vol. 8, 1 6564. Apr. 26, 2018, doi:10.1038/s41598-018-25019-1.
- 33. B. Norbaini et al. "Cancer-associated thrombosis: An overview of mechanisms, risk factors, and treatment." Cancers, vol. 10,10 380. 11 Oct. 2018, doi:10.3390/cancers10100380.
- 34. S. Sen, et al. "Development of a prognostic scoring system for patients with advanced cancer enrolled in immune checkpoint inhibitor phase 1 clinical trials." *British Journal of Cancer*, vol. 118,6 (2018): 763-769. doi:10.1038/bjc.2017.480.
- 35. S. Shrotriya, et al. "C-reactive protein is an important biomarker for prognosis tumor recurrence and treatment response in adult solid tumors: A systematic review." *PloS One*, vol. 10,12 e0143080. Dec. 2015. doi:10.1371/journal.pone.0143080.
- 36. A. Katano, et al. "The impact of elevated C-reactive protein level on the prognosis for oro-hypopharynx cancer patients treated with radiotherapy," Sci. Rep., 7, 17805 (2017). https://doi.org/10.1038/s41598-017-18233-w.
- 37. J. J. Hu, et al. "Association between inflammatory biomarker c-reactive protein and radiotherapy-induced early adverse skin reactions in a multiracial/ethnic breast cancer population," *Journal of Clinical Oncology*, 36, no. 24 (Aug. 20, 2018) 2473-2482. DOI: 10.1200/JCO.2017.77.1790.
- 38. F. A. Mahmoud and N. I. Rivera. The role of C-reactive protein as a prognostic indicator in advanced cancer. Current Oncology Report, 4, 250-255 (2002). https://doi.org/10.1007/811912-002-0023-1.
- 39. AUTHOR NOTE: CRP has also been examined as a diagnostic tool for cancer risk. For instance: J. Watson, et al. "Predictive value of inflammatory markers for cancer diagnosis in primary care: A prospective cohort study using electronic health records," *British Journal of Cancer*, 120 (2019), 1045-51. https://doi.org/10.1038/s41416-019-0458-x.
- 40. C. Yadav, et al. "Serum lactate dehydrogenase in non-Hodgkin's lymphoma: A prognostic indicator," *Indian Journal of Clinical Biochemistry*, vol. 31,2 (2016), 240-2. doi:10.1007/ST229T-015-0511-3.
- 41. A. Farhana and S. L. Lappin. *Biochemistry, Lactate Dehydrogenase* (updated 2020 May 17); in StatPearls (online). Treasure Island, FL: Stat-Pearls, 2021. https://www.ncbi.nlm.nih.gov/books/NBK557536/.
- D. Mishra and D. Banerjee. "Lactate dehydrogenases as metabolic links between tumor and stroma in the tumor microenvironment," *Cancers*, vol. 11,6 750. 29 May. 2019, doi:10.3390/cancers11060750.
- 43. Ibid.
- 44. T. N. Seyfried, et al. "Cancer as a metabolic disease: Implications for novel therapeutics," *Carcinogenesis*, vol. 35,3 (2014): 575-27. doi:10.1093/carcin/bgt480.
- 45. S. Shrotriya, et al. "C-reactive protein is an important biomarker for prognosis tumor recurrence and treatment response in adult solid tumors: A systematic review," *PloS One*, vol. 10,12 e0143080. 30 Dec. 2015, doi:10.1371/journal.pone.0143080.

- 46. AUTHOR NOTE: Regarding monitoring vitamin D levels, I routinely screen my patients' 1,25 and 25-OH levels prior to vitamin D supplementation and then watch their serum calcium levels monthly during supplementation to make sure there are no issues with hypercalcemia. I have yet to see D3 toxicity occur. If I see serum calcium rise, then we simply stop the D3 supplementation for a few days (but continue taking K2), then resume D3 at much lower doses. That's all that's needed.
- 47. A. J. van Ballegooijen, et al. "The Synergistic Interplay between vitamins D and K for bone and cardiovascular health: A narrative review," *International Journal of Endocrinology*, vol. 2017 (2017): 7454376. doi:10.1155/2017/7454376.
- 48. S. Goddek. "Vitamin D3 and K2 and their potential contribution to reducing the covid-19 mortality rate," International Journal of Infectious Diseases: Official Publication of the International Society for Infectious Diseases, vol. 99 (2020): 286-290. doi:10.1016/j.ijid.2020.07.080.
- 49. N. R. Parva, et al. "Prevalence of vitamin D deficiency and associated risk factors in the US population (2011–2012)," *Cureus*, vol. 10,6 e2741. 5
 Jun. 2018, doi:10.7759/cureus.2741.
- 50. J. Chan, et al. "Serum 25-hydroxyvitamin D status of vegetarians, partial vegetarians, and nonvegetarians: The Adventist health study-2," *The American Journal of Clinical Nutrition*, vol. 89,5 (2009): 1686S-1692S. doi:10.3945/ajcn.2009.26736X.
- 51. L. Vranić, et al. "Vitamin D deficiency: Consequence or cause of obesity?" *Medicina* (Kaunas, Lithuania), vol. 55,9 541. 28 Aug. 2019, doi:10.3390/medicina55090541.
- 52. U. Gröber and K. Kisters. "Influence of drugs on vitamin D and calcium metabolism," *Dermato-endocrinology*, vol. 4,2 (2012): 158-66. doi:10.4161/derm.20731.
- 53. AUTHOR NOTE: 42 percent is the actual number noted in studies. But that is based on "average" findings, showing that 42 percent of the population has D3 levels under 30. The vitamin D deficiency percentage is closer to 70 percent when we look at those with levels under 50.
- 54. N. R. Parva, et al. "Prevalence of vitamin D deficiency and associated risk factors in the US population (2011–2012)," Cureus, vol. 10,6 e2741. 5 Jun. 2018, doi:10.7759/cureus.2741.
- 55. B. Loef, et al. "Immunological effects of shift work in healthcare workers," *Scientific Reports*, vol. 9,1 18220. 3 Dec. 2019, doi:10.1038/s41598-019-54816-5.
- 56. T. W. Kim et al. "The impact of sleep and circadian disturbance on hormones and metabolism," *Int. Journal of Endocrinology*, 2015;2015;591729. doi: 10.1155/2015/591729. Epub 2015 Mar 11. PMID: 25861266; PMCID: PMC4377487.
- 57. S. P. Megdal, et al. "Night work and breast cancer risk: A systematic review and meta-analysis," European Journal of Cancer (Oxford, UK: 1990), vol. 41,13 (2005): 2023-32. doi:10.1016/j.ejca.2005.05.010.
- 58. X. Yuan, et al. "Night shift work increases the risks of multiple primary cancers in women: A systematic review and meta-analysis of 61 articles," Cancer Epidemiol Biomarkers Prev., 2018 Jan; 27(1):25-40.

- 59. E. Pukkala, et al. "Incidence of cancer among Finnish airline cabin attendants, 1967–92." *BMJ* (Clinical Research ed.), vol. 311,7006 (1995): 649–52. doi:10.1136/bmj.311.7006.649.
- 60. Oct. 2, 2017 Nobel Prize press release: https://www.nobelprize.org/prizes/medicine/2017/press-release/. Accessed Apr. 28, 2021.
- 61. J. C. Dunlap. "Molecular bases for circadian clocks," *Cell*, Jan. 22, 1999; 96(2):271-90. doi: 10.1016/s0092-8674(00)80566-8. PMID: 9988221.
- 62. D. Bell-Pedersen, et al. "Circadian rhythms from multiple oscillators: Lessons from diverse organisms," *Natural Reviews: Genetics*, Jul. 2005;6(7):544-56. doi: 10.1038/nrg1633. PMID: 15951747; PMCID: PMC2735866.
- 63. R. Pryor, et al. "The role of the microbiome in drug response," Annual Review of Pharmacology and Toxicology, vol. 60 (2020): 417–35. doi:10.1146/annurev-pharmtox-010919-023612.
- 64. W. Ma, et al. "Gut microbiota shapes the efficiency of cancer therapy," Frontiers in Microbiology, vol. 10 1050. Jun. 25, 2019, doi:10.3389/fmicb.2019.01050.
- 65. AUTHOR NOTE: Low D3 directly impacts hundreds of epigenetic switches, affecting metabolic function, hormonal regulation, and immune response, as shown in I. S. Fetahu, et al. "Vitamin D and the epigenome," Front Physiol., Apr. 2014 29;5:164. doi: 10.3389/fphys.2014.00164. PMID: 24808866; PMCID: PMC4010791.
- 66. AUTHOR NOTE: Low D3 levels are also associated with depression and dopamine issues in particular, as shown in I. Anjum, et al. "The role of vitamin D in brain health: A mini-literature review," *Cureus*, Jul. 2018 10;10(7):e2960. doi: 10.7759/cureus.2960. PMID: 30214848. PMClD: PMC6132681.
- 67. B. S. McEwen. "Central effects of stress hormones in health and disease: Understanding the protective and damaging effects of stress and stress mediators," European Journal of Pharmacology, vol. 583,2-3 (2008): 174-85. doi:10.1016/j.ejphar.2007.11.071.
- 68. E. K. Adam, et al. "Diurnal cortisol slopes and mental and physical health outcomes: A systematic review and meta-analysis," *Psychoneuro-endocrinology*, vol. 83 (2017): 25-41. doi:10.1016/j.psyneuen.2017.05.018.
- 69. L. Fiorentino and S. Ancoli-Israel. "Sleep dysfunction in patients with cancer," Current Treatment Options in Neurology, vol. 9,5 (2007): 337-46.
- 70. A. S. Prasad. "Zinc in human health: Effect of zinc on immune cells," Mol. Med., May-Jun. 2008; 14(5-6): 353-357.
- 71. E. Prado de Oliveira and R. C. Burini. "High plasma uric acid concentration: Causes and consequences," *Diabetol. Metab. Syndr.*, 4, 12 (2012). https://doi.org/10.1186/1758-5996-4-12.
- 72. M. Jung, et al. "Iron as a central player and promising target in cancer progression," *International Journal of Molecular Sciences*, vol. 20,2 273. Jan. 11, 2019, doi:10.3390/ijms20020273.
- 73. D. Galaris, et al. "Iron homeostasis and oxidative stress: An intimate relationship," *Biochimica et Biophysica Acta (BBA): Molecular Cell*

- Research, vol. 1866, no. 12, 2019, 118535, ISSN 0167-4889, https://doi.org/10.1016/j.bbamcr.2019.118535.
- 74. P. R. Bock, et al. "Targeting inflammation in cancer-related-fatigue: A rationale for mistletoe therapy as supportive care in colorectal cancer patients," *Inflamm. Allergy Drug Targets*, 2014;13(2):105-11. doi: 10.2174/1871528113666140428103332. PMID: 24766319; PMCID: PMC4133960.
- 75. M. Kröz, et al. "Mistletoe: From basic research to clinical outcomes in cancer and other indications," Evidence-based Complementary and Alternative Medicine, vol. 2014, Article ID 987527, 2 pages, 2014. https://doi.org/10.1155/2014/987527.
- 76. S. C. Segerstrom, et al. "Psychological stress and the human immune system: A meta-analytic study of 30 years of inquiry," *Psychological Bulletin*, vol. 130,4 (2004): 601–30. doi:10.1037/0033-2909.130.4.601.
- 77. Ibid.
- 78. S. A. Font and K. Maguire-Jack, "Pathways from childhood abuse and other adversities to adult health risks: The role of adult socioeconomic conditions," *Child Abuse and Neglect*, 51, no. 2 (2016): 390-99.
- 79. L. LeShan, Cancer as a Turning Point: A Handbook for People with Cancer, Their Families, and Health Professionals, New York: Plume, 1994.
- 80. K. Turner, Radical Remission: Surviving Cancer Against All Odds, San Francisco: HarperOne, 2015.
- 81. Y. Balhara. "Diabetes and psychiatric disorders," *Indian Journal of Endocrinology and Metabolism*, vol. 15,4 (2011): 274-83. doi:10.4103/2230-8210.85579.
- 82. A. Felman. "How does diabetes affect mood and relationships?" Medical News Today (medically reviewed by D. Weatherspoon, PhD, RN, CRNa) May 24, 2019; published at https://www.medicalnewstoday.com/articles /317458. Retrieved Apr. 30, 2021.
- 83. S. Penckofer, et al. "Vitamin D and depression: Where is all the sunshine?" Issues in Mental Health Nursing, vol. 31,6 (2010): 385-93. doi:10.3109/01612840903437657.
- 84. E. Golovina, et al. "GWAS SNPs impact shared regulatory pathways amongst multimorbid psychiatric disorders and cognitive functioning," Frontiers in Psychiatry, Oct. 23 2020 https://doi.org/10.3389/fpsyt.2020.560751.
- 85. Lin Chin-Chuen and Tiao-Lai Huang. "Brain-derived neurotrophic factor and mental disorders," *Biomedical Journal*, vol. 43, no. 2, 2020, pp. 134-42, ISSN 2319-4170, https://doi.org/10.1016/j.bj.2020.01.001.
- 86. A. M. Dlugos, et al. "Negative emotionality: Monoamine oxidase B gene variants modulate personality traits in healthy humans," *Journal of Neural Transmission* (Vienna, 1996), vol. 116,10 (2009): 1323-34. doi:10.1007/s00702-009-0281-2.
- 87. "Genes may make some people more prone to anxiety," American Psychological Association, Public Affairs Monograph (Washington DC, 2008), https://www.apa.org/news/press/releases/2008/08/genes-anxiety. Retrieved Apr. 30, 2021.

- 88. B. M. Heiny, et al. (1998). "Correlation of immune cell activities and beta-endorphin release in breast carcinoma patients treated with galactose-specific lectin standardized mistletoe extract," *Anticancer Res.*, 18:583–86.
- 89. S. de Groot, et al. "Effects of short-term fasting on cancer treatment," *Journal of Experimental and Clinical Cancer Research: CR*, vol. 38,1 209. May. 22, 2019, doi:10.1186/s13046-019-1189-9.
- 90. S. K. Denduluri, et al. "Insulin-like growth factor (IGF) signaling in tumorigenesis and the development of cancer drug resistance," *Genes and Diseases*, vol. 2, no. 1, 2015, pp. 13-25, ISSN 2352-3042. https://doi.org/10.1016/j.gendis.2014.10.004.
- 91. Ibid.
- 92. C. C. Onunogbo, et al. 2013. "Effect of mistletoe (Viscum album) extract on the blood glucose, liver enzymes and electrolyte balance in alloxan induced diabetic rats," American Journal of Biochemistry and Molecular Biology, 3: 143-50. https://scialert.net/fulltext/?doi=ajbmb.2013.143.150.
- 93. A. E. Eno, et al. "Stimulation of insulin secretion by Viscum album (mistletoe) leaf extract in streptozotocin-induced diabetic rats," *Afr. Journal Med. Med. Sci*, Jun. 2008;37(2):141-47. PMID: 18939397.

CHAPTER 6

- 1. R. Steiner, lecture of Oct. 27, 1922 p.m. in Physiology and Healing: Treatment, Therapy, and Hygiene (CW 314), Op. cit.
- 2. M. Protsiv, et al. "Decreasing human body temperature in the United States since the Industrial Revolution," *eLife*, 2020; 9: e49555. Published online Jan 7, 2020.
- 3. Z. Obermeyer, et al. "Individual differences in normal body temperature: longitudinal big data analysis of patient records," *BMJ (Clinical research ed.)*, vol. 359 j5468. Dec. 13, 2017, doi:10.1136/bmj.j5468.
- 4. D. B. Boivin, et al. "Circadian sex differences in sleep and alertness," *Proceedings of the National Academy of Sciences*, Sep 2016, 201524484. doi: 10.1073/pnas.1524484113.
- 5. D. B. Boivin, et al. "Diurnal and circadian variation of sleep and alertness in men vs. naturally cycling women," *Proceedings of the National Academy of Sciences of the United States of America*, vol. 113,39 (2016): 10980-5. doi:10.1073/pnas.1524484113.
- 6. J. E. Sullivan, et al. "Fever and antipyretic use in children," *Pediatrics*, vol. 127,3 (2011): 580–87. doi:10.1542/peds.2010-3852.
- 7. Ibid
- 8. AUTHOR NOTE: Information about these kinds of lemon treatments for fever can be found at https://www.pflege-vademecum.de/anwendungen_bei_fieber.php.
- 9. H. J. Hamre, et al. "Antibiotic use in children with acute respiratory or ear infections: Prospective observational comparison of anthroposophic and conventional treatment under routine primary care conditions," Evidence-based Complementary and Alternative Medicine: eCAM, vol. 2014 (2014): 243801. doi:10.1155/2014/243801.

- 10. T. von Schoen-Angerer, et al. "Effect of topical rosemary essential oil on Raynaud phenomenon in systemic sclerosis," Complementary Therapies in Medicine, vol. 40, Oct. 2018, pp. 191-94.
- r1. T. Ostermann, et al. "Effects of rhythmic embrocation therapy with solum oil in chronic pain patients: A prospective observational study," The Clinical Journal of Pain, vol. 24,3 (2008): 237–43. doi:10.1097/AJP .0b013e3181602143.
- 12. P. Selg, Helene von Grunelius und Rudolf Steiners Kurse für junge Mediziner: Eine biographische Studie [Helene von Grunelius and Rudolf Steiner's course for young doctors: A biographical study], Dornach, Switzerland: Verlag am Goetheanum, 2003.
- 13. L. E. Williams and J. A Bargh. "Experiencing physical warmth promotes interpersonal warmth." Science (New York), vol. 322,5901 (2008): 606-7. OR Oct. 24, 2008: 322(5901):606-07 doi:10.1126/science.1162548.
- T4. L. K. Curran, et al. "Behaviors associated with fever in children with autism spectrum disorders," *Pediatrics*, vol. 120,6 (2007): eτ386-92. doi:10.1542/peds.2007-0360.

CHAPTER 7

- L. LeShan, Cancer as a Turning Point: A Handbook for People with Cancer, Their Families, and Health Professionals, New York: Plume, 1994.
- 2. M. Girke, Internal Medicine: Foundations and therapeutic concepts of Anthroposophic Medicine (Berlin: Salumed-Verlag, 2016), chap. 2; 1.0-1.5.
- 3. lbid., chap. 14; 2.3.
- 4. Ibid., chap. 1.6 1.7.
- 5. Ibid., chap. 2.0-2.2.3.
- 6. Ibid., chap. 1.
- 7. M. Moreno-Smith, et al. "Impact of stress on cancer metastasis," Future Oncology (London), vol. 6,12 (2010): 1863-81. doi:10.2217/fon.10.142.
- 8. K. Esposito, et al. "Metabolic syndrome and risk of cancer: A systematic review and meta-analysis," *Diabetes Care*, vol. 35,11 (2012): 2402-11. doi:10.2337/dc12-0336. https://www.ncbi.nlm.nih.gov/pmc/articles /PMC3476894/#:~:text=Findings%20from%20this%20meta%2Danalysis,by%20accompanying%20obesity%20of%20hyperglycemia.
- 9. S. P. Megdal, et al. "Night work and breast cancer risk: A systematic review and meta-analysis," European Journal of Cancer (Oxford, UK, 1990) vol. 41,13 (2005): 2023–32. doi:10.1016/j.ejca.2005.05.010.
- 10. E. McNeely, et al. "The self-reported health of U.S. flight attendants compared to the general population," *Environ. Health*, 13, 13 (2014). https://doi.org/10.1186/1476-069X-13-13.
- 11. M. Girke, Internal Medicine, Op. cit., chap. 14.2-14.4.
- T2. C. Tautz: Kinderkrankheiten als Weg zur Immunkompetenz [Childhood illnesses as a path toward immune competence| (Berlin: Der Merkurstab, 2002), pp. 24-29.
- 13. M. Girke. Internal Medicine, Op. cit., chap. 14.2.4.4.

- 14. S. C. Segerstrom and G. E Miller. "Psychological stress and the human immune system: A meta-analytic study of 30 years of inquiry," *Psychological Bulletin*, vol. 130,4 (2004): 601–30. doi:10.1037/0033-2909.130.4.601.
- 15. M. P. da Silveira, et al. "Physical exercise as a tool to help the immune system against covid-19: An integrative review of the current literature," Clinical and Experimental Medicine, vol. 21,1 (2021): 15–28. doi:10.1007/s10238-020-00650-3.
- r6. J. R. Infante, et al. "Levels of immune cells in transcendental meditation practitioners," *International Journal of Yoga*, vol. 7,2 (2014): 147-51. doi:10.4103/0973-6131.133899.
- 17. V. J. Felitti, et al. "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The adverse childhood experiences (ACE) study," *American Journal of Preventive Medicine*, vol. 14,4 (1998): 245-58. doi:10.1016/s0749-3797(98)00017-8.
- 18. S. A. Font and K. Maguire-Jack, "Pathways from childhood abuse and other adversities to adult health risks: The role of adult socioeconomic conditions," *Child Abuse and Neglect*, 51, no. 2 (2016): 390-99.
- 19. H. Alcalá, et al. "Gender differences in the association between adverse childhood experiences and cancer," Women's Health Issues, 27, no. 6 (2017): 625-31.
- 20. B. von Laue. Natur- und Geistesgeschichtliche Aspekte der Tumorentwicklung [Natural and spiritual developmental aspects of tumor development| (Berlin: Der Merkurstab, 1999). p. 145.
- 21. R. Steiner, Physiology and Healing: Treatment, Therapy, and Hygiene, lect. 1, Dec. 7, 1920. Op. cit.
- 23. L. LeShan, Cancer as a Turning Point, Op cit.
- 24. X. Yuan, et al. "Night-shift work increases the risks of multiple primary cancers in women: A systematic review and meta-analysis of 61 articles," Op. cit.
- 25. E. Pukkala, et al. "Incidence of cancer among Finnish airline cabin attendants, 1967–92," Op cit.
- 26. S. P. Tsai, et al. (Apr. 2004). "Mortality patterns among residents in Louisiana's industrial corridor, USA, 1970-99," Occup. Environ. Med., 61 (4): 295-304.
- 27. Centers for Disease Control. (2002). Cancer Prevention and Control "Cancer Burden Data Fact Sheets, Louisiana," Atlanta, GA.
- 28. A. D. Blodgett. "An analysis of pollution and community advocacy in 'Cancer Alley': Setting an example for the environmental justice movement in St James Parish, Louisiana," *Local Environment*, ττ(6) (2007), 647–61, DOI: 10.1080/13549830600853700.
- 29. K. Turner, Radical Remission: Surviving Cancer against All Odds, San Francisco: HarperOne, 2015.
- 30. C. Tautz. Kinderkrankheiten als Weg zur Immunkompetenz | Childhood illnesses as a path toward immune competence] (Berlin: Der Merkurstab, 2002), pp. 24-29.
- 31. M. Orange, "Mistletoe fever with subcutaneously injected mistletoe," *Der Merkurstab*; 5/2017; pp 377-83.

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- 32. D. Furman, et al. "Chronic inflammation in the etiology of disease across the life span," *Nature Medicine*, vol. 25,12 (2019): 1822-1832. doi:10.T038/s41591-019-0675-0.
- 33. M. Girke. Internal Medicine, Op. cit., chap. 5; 1.0-2.3.
- 34. K. H. Allin, et al. "Elevated C-reactive protein in the diagnosis, prognosis, and cause of cancer," *Critical Reviews in Clinical Laboratory Sciences*, vol. 48,4 (2011): 155-70. doi:10.3109/10408363.2011.599831.
- 35. AUTHOR NOTE: Such observations have been noticed by a group for rhythmic studies at the Carl Gustav Carus Institute in Niefern-Öschelbronn, Germany. I have also noticed some preliminary animal research here: A. Karakas, et al. "Effects of European mistletoe (Viscum album L. subsp. album): Extracts on activity rhythms of the Syrian hamsters (Mesocricetus auratus)," Natural Product Research, 22:11 (2008), 990-1000, DOI: 10.1080/14786410701654776.
- 36. M. Orange, et al. "Durable regression of primary cutaneous b-cell lymphoma following fever-inducing mistletoe treatment: Two case reports," *Phytomedicine*, 20, nos, 3-4 (Feb. 15, 2013): 324-27.
- 37. J. Blume, et al. "Immune suppression and immune activation in depression," *Brain, Behavior, and Immunity*, vol. 25,2 (2011): 221-29. doi:10.1016/j.bbi.2010.10.008.
- 38. E. Reiche et al. "Stress, depression, the immune system, and cancer," *The Lancet*. Oncology, vol. 5,10 (2004): 617–25. doi:10.1016/S1470-2045 (04)01597-9.
- 39. S. C. Segerstrom and G. E Miller. "Psychological stress and the human immune system: A meta-analytic study of 30 years of inquiry," Op cit.
- 40. V. J. Felitti, et al. "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study," Op. cit.
- 4T. S. A. Font and K. Maguire-Jack, "Pathways from childhood abuse and other adversities to adult health risks: The role of adult socioeconomic conditions," Op. cit.
- 42. H. Alcalá, et al. "Gender differences in the association between adverse childhood experiences and cancer," Op. cit.
- 43. L. LeShan. Cancer as a Turning Point, Op. cit.
- 44. B. M. Heiny, et al (τ998). "Correlation of immune cell activities and betaendorphin release in breast carcinoma patients treated with galactose-specific lectin standardized mistletoe extract," Anticancer Res., 18:583-86.
- 45. G. S. Kienle, et al. "Intravenous mistletoe treatment in integrative cancer care: A qualitative study exploring the procedures, concepts, and observations of expert doctors," Evidence Based Complementary Alternative Medicine (2016):4628287. ePub Apr. 24, 2016.
- 46. V. Bott. Spiritual Science and the Art of Healing: Rudolf Steiner's Anthroposophical Medicine, New York: Healing Arts Press, 1996.
- 47. M. Gierke. Internal Medicine, Op. cit., chap. 1.2.
- 48. M. Debus. "Mistletoe induction therapy and advanced dosing protocols," Mistletoe and Integrative Oncology: European Research and Best Practices 2020. Presented by the Physicians' Association for Anthroposophic