

文献

- Abotaleb, M., Samuel, S. M., Varghese, E., Varghese, S., Kubatka, P., Liskova, A., & Büsselberg, D. (2019). Flavonoids in Cancer and Apoptosis. *Cancers*, 11(1):28.
<https://dx.doi.org/10.3390%2Fcancers11010028>.
- American College of Radiology. (2013). ACR BI-RADS® Atlas 5th Edition. Retrieved December 10, 2021 from <https://www.acr.org/Clinical-Resources/Reporting-and-Data-Systems/Bi-Rads>.
- American Cancer Society. (2019). Breast Density and Your Mammogram Report. Retrieved December 10, 2021 from <https://www.cancer.org/cancer/breast-cancer/screening-tests-and-early-detection/mammograms/breast-density-and-your-mammogram-report.html>.
- Atkinson, C., Warren, R. M., Sala, E., Dowsett, M., Dunning, A. M., Healey, C. S., Runswick, S., Day, N. E., & Bingham, S. A. (2004). Red-clover-derived isoflavones and mammographic breast density: a double-blind, randomized, placebo-controlled trial [ISRCTN42940165]. *Breast Cancer Res.* 6(3), R170-179. doi: 10.1186/bcr773.
- Batzell, K. A., Moghadassi, M., Rice, Terri., Sison, J. D., & Wrensch, M. (2008). Epithelial cells in nipple aspirate fluid and subsequent breast cancer risk: a historic prospective study. *BMC Cancer*, 8(75). doi.org/10.1186%2F1471-2407-8-75.
- Bolego, C., Poli, A., Cignarella, A., & Paoletti, R. (2003). Phytoestrogens: pharmacological and therapeutic perspectives. *Current Drug Targets*, 4(1), 77-87.
- Boyd, N. F., Martin, L. J., Yaffe, M. J., & Minkin, S. (2011). Mammographic density and breast cancer risk: current understanding and future prospects. *Breast Cancer Research*, 13(6), 223. doi.org/10.1186%2Fbcr2942.
- Boyd, N. F., Rommens, J. M., Vogt, K., Lee, V., Hopper, J. L., Yaffe, M. J., & Paterson, A. D. (2005). Mammographic breast density as an intermediate phenotype for breast cancer. *Lancet Oncol*, 6(10), 798-808. doi.org/10.1016/s1470-2045(05)70390-9.
- Brodowska, K. M. (2017). Natural flavonoids: classification, potential role, and application of flavonoid analogues. *European Journal of Biological Research*, 7(2), 108-123. doi.org/10.5281/zenodo.545778.

- Brown, B. D., Thomas, W., Hutchins, A., Martini, M. C., & Slavin, J. L. (2002). Types of dietary fat and soy minimally affect hormones and biomarkers associated with breast cancer risk in premenopausal women. *Nutr Cancer*, 43(1), 22-30. doi: 10.1207/S15327914NC431_2.
- Byrne, C., Ursin, G., Martin, C. F., Peck, J. D., Cole, E. B., Zeng, D., Kim, E., Yaffe, M. D., Boyd, N. F., Heiss, G., McTiernan, A., Chebowski, R. T., Lane, D. S., Manson, J. E., Wactawski-Wende, J., & Pisano, E. D. (2017). Mammographic Density Change with Estrogen and Progestin Therapy and Breast Cancer Risk. *Journal of the national cancer institute*, 109(9). doi.org/10.1093/jnci/djx001.
- Campbell, M. J., Woodside, J. V., Honour, J. W., Morton, M. S., & Leathem, A. J. (2004). Effect of red clover-derived isoflavone supplementation on insulin-like growth factor, lipid and antioxidant status in healthy female volunteers: a pilot study. *Eur J Clin Nutr*, 58(1), 173-179. doi: 10.1038/sj.ejcn.1601764.
- Chen, M., Rao, Y., Zheng, Y., Wei, S., Li, Y., Guo, T., & Yin, P. (2014). Association Between Soy Isoflavone Intake and Breast Cancer Risk for Pre- and Post-Menopausal Women: A Meta-Analysis of Epidemiological Studies. *PLoS One*, 9 (2): e89288. doi.org/10.1371/journal.pone.0089288.
- Colacurci, N., Franciscis, P. D., Atlante, M., Mancino, P., Monti, M., Volpini, G., & Benvenuti, C. (2013). Endometrial, breast and liver safety of soy isoflavones plus Lactobacillus sporogenes in post-menopausal women. *Gynecol Endocrinol*, 29(3), 209-212. doi: 10.3109/09513590.2012.738724.
- Crew, K. D., Brown, P., Greenlee, H., Bevers, T. B., Arun, B., Hudis, C., McArthur, H. L., Chang, J., Rimawi, M., Vornik, L., Cornelison, T. L., Wang, A., Hibshoosh, H., Ahmed, A., Terry, M. B., Santella, R. M., Lippman, S. M., & Hershman, D. L. (2012). Phase IB randomized, double-blinded, placebo-controlled, dose escalation study of polyphenon E in women with hormone receptor-negative breast cancer. *Cancer Prev Res (Phila)*, 5(9), 1144-1154. doi: 10.1158/1940-6207.
- Dandamudi, A., Tommie, J., Nommsen-Rivers, L., & Couch, S. (2018). Dietary Patterns and Breast Cancer Risk: A Systematic Review. *Anticancer Research*, 38(6), 3209-3222. doi.org/10.21873/anticanres.12586.

- Delmanto, A., Nahas-Neto, J., Traiman, P., Uemura, G., Pessoa, E. C., & Nahas, E. A. (2013). Effects of soy isoflavones on mammographic density and breast parenchyma in postmenopausal women: a randomized, double-blind, placebo-controlled clinical trial. *Menopause, 20*(10), 1049-54. doi: 10.1097/GME.0b013e3182850270.
- Engmann, N. J., Scott, C. G., Jensen, M. R., Ma, Lin., Brant, K. R., Mahmoudzadeh, A., Malkov, S., Whaley, D. H., Hruska, C., Wu, F., Winham, S., Miglioretti, D. L., Norman, A. D., Heine, J., Shepherd, J., Pankratz, V. S., Vachon, C. M., & Kerlikowske, K. (2017). Longitudinal changes in volumetric breast density with tamoxifen and aromatase inhibitors. *Cancer Epidemiol Biomarkers Prev, 26*(6), 930-937. doi.org/10.1158/1055-9965.epi-16-0882.
- Ferraris, C., Ballestra, B., Listorti, C., Cappelletti, V., Reduzzi, C., Scaperrotta, G. P., Pulice, I., Ferrari, E. G. A., Folli, S., Mariani, L., & Martelli, G. (2020). Red clover and lifestyle changes to contrast menopausal symptoms in premenopausal patients with hormone-sensitive breast cancer receiving tamoxifen. *Breast Cancer Res Treat, 180*(1), 157-165. doi: 10.1007/s10549-020-05534-4.
- Gann, P. H., Kazer, R., Chatterton, R., Gapstur, S., Thedford, K., Helenowski, I., Giovanazzi, S., & Horn, L. V. (2005). Sequential, randomized trial of a low-fat, high-fiber diet and soy supplementation: effects on circulating IGF-I and its binding proteins in premenopausal women. *Int J Cancer, 116*(2), 297-303. doi: 10.1002/ijc.21042.
- Higgins, J. P. T., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V.A. (editors). *Cochrane Handbook for Systematic Reviews of Interventions* version 6.0 (updated July 2019). Cochrane, 2019. Retrieved December 10, 2021 from www.training.cochrane.org/handbook.
- Hopper, L., Madhavan, G., Tice, J. A., Leinster, S. J., & Cassidy, A. (2010). Effects of isoflavones on breast density in pre- and post-menopausal women: a systematic review and meta-analysis of randomized controlled trials. *Human Reproduction Update, 16*(6), 745-760. doi.org/10.1093/humupd/dmq011.
- Jaskulski, S., Jung, A. Y., Rudolph, A., Johnson, T., Thone, K., Herpel, E., Sinn, P., & Chang-Claude, J. (2017). *Mol Nutr Food Res, 61*(11), 1-10. doi.org/10.1002/mnfr.201700449.
- Kaaks, R., Bellati, C., Venturelli, E., Rinaldi, S., Secreto, G., Biessy, C., Pala, V., Sieri, S., & Berrino, F. (2003). Effects of dietary intervention on IGF-I and IGF-binding proteins, and related alterations

- in sex steroid metabolism: the Diet and Androgens (DIANA) Randomised Trial. *Eur J Clin Nutr*, 57(9), 1079-88. doi: 10.1038/sj.ejcn.1601647.
- Key, T., Appleby, P., Barnes, I., & Reeves, G. (2002). Endogenous sex hormones and breast cancer in postmenopausal women: reanalysis of nine prospective studies. *J Natl Cancer Inst*, 94(8), 606-616. doi.org/10.1093/jnci/94.8.606.
- Khan, S. A., Chatterton, R. T., Michel, N., Bryk, M., Lee, O., Ivancic, D., Heinz, R., Zalles, C. M., Helenowski, I. B., Jovanovic, B. D., Franke, A. A., Bosland, M. C., Wang, J., Hansen, N. M., Bethke, K. P., Dew, A., Coomes, M., & Bergan, R. C. (2012). Soy isoflavone supplementation for breast cancer risk reduction: a randomized phase II trial. *Cancer Prev Res (Phila)*, 5(2), 309-319. doi: 10.1158/1940-6207.CAPR-11-0251.
- 国立がん研究センターがん情報サービス.(2018). がん登録・統計. Retrieved December 10, 2021 from https://ganjoho.jp/reg_stat/statistics/brochure/backnumber/2019_jp.html.
- Laron, Z. (2001). Insulin-like growth factor 1 (IGF-1): a growth hormone. *Mol Pathol*, 54(5), 311-316. doi.org/10.1136/mp.54.5.311.
- Li, F., Dou, J., Wei, L., Li, S., Liu, J. (2016). The selective estrogen receptor modulators in breast cancer prevention. *Cancer Chemother Pharmacol*, 77(5), 895-903. doi.org/10.1007/s00280-016-2959-0.
- Marini, H., Bitto, A., Altavilla, D., Burnett, B. P., Polito, F., Stefano, V. D., Minutoli, L., Atteritano, M., Levy, R. M., D'Anna, R., Frisina, N., Mazzaferro, S., Cancellieri, F., Cannata, M. L., Corrado, F., Frisina, A., Adamo, V., Lubrano, C., Sansotta, C., Marini, R., Adamo, E. B., & Squadrito, F. (2008). Breast safety and efficacy of genistein aglycone for postmenopausal bone loss: a follow-up study. *J Clin Endocrinol Metab*, 93(12), 4787-96. doi: 10.1210/jc.2008-1087.
- Maskarinec, G., Franke, A. A., Williams, A. E., Hebshi, S., Oshiro, C., Murphy, S., & Stanczyk, F. Z. (2004). Effects of a 2-year randomized soy intervention on sex hormone levels in premenopausal women. *Cancer Epidemiol Biomarkers Prev*, 13(11 Pt 1), 1736-1744.
- Maskarinec, G., Morimoto, Y., Conroy, S. M., Pagano, I. S., & Franke, A. A. (2011). The volume of nipple aspirate fluid is not affected by 6 months of treatment with soy foods in premenopausal women. *J Nutr*, 141(4), 626-630. doi: 10.3945/jn.110.133769.
- Maskarinec, G., Ollberding, N. J., Conroy, S. M., Morimoto, Y., Pagano, I. S., Franke, A. A., Gentzschein, E., & Stanczyk, F. Z. (2011). Estrogen levels in nipple aspirate fluid and serum

- during a randomized soy trial. *Cancer Epidemiol Biomarkers Prev*, 20(9), 1815-1821. doi: 10.1158/1055-9965.EPI-11-0363.
- Maskarinec, G., Takata, Y., Franke, A. A., Williams, A. E., & Murphy, S. P. (2004). A 2-year soy intervention in premenopausal women does not change mammographic densities. *J Nutr*, 134(11), 3089-3094. doi: 10.1093/jn/134.11.3089.
- Maskarinec, G., Takata, Y., Murphy, S. P., Franke, A. A., & Kaaks, R. (2005). Insulin-like growth factor-1 and binding protein-3 in a 2-year soya intervention among premenopausal women. *Br J Nutr*, 94(3), 362-367. doi: 10.1079/bjn20051525.
- Maskarinec, G., Verheus, M., Steinberg, F. M., Amato, P., Cramer, M. K., Lewis, R. D., Murray, M. J., Young, R. L., & Wong, W. W. (2009). Various Doses of Soy Isoflavones Do Not Modify Mammographic Density in Postmenopausal Women. *The Journal of Nutrition*, 139(5), 981-986. doi.org/10.3945/jn.108.102913.
- Maskarinec, G., Williams, A. E., & Carlin, L. (2003). Mammographic densities in a one-year isoflavone intervention. *Eur J Cancer Prev*, 12(2), 165-169. doi: 10.1097/00008469-200304000-00011.
- Maskarinec, G., Williams, A. E., Inouye, J. S., Stanczyk, F. Z., & Franke, A. A. (2002). A randomized isoflavone intervention among premenopausal women. *Cancer Epidemiol Biomarkers Prev*, 11(2), 195-201.
- Messina, M., Nagata, C., & Wu, A. H. (2006). Estimated Asian adult soy protein and isoflavone intakes. *Nutr Cancer*, 55(1), 1-12. doi.org/10.1207/s15327914nc5501_1.
- Mills, J. M., Rutkovsky, A. C., & Giordano, A. (2018). Mechanisms of resistance in estrogen receptor positive breast cancer: overcoming resistance to tamoxifen/aromatase inhibitors. *Curr Opin Pharmacol*, 41, 59-65.
- Mourouti, N., Kontogianni, M. D., Papavagelis, C., & Panagiotakos, D. B. (2015). Diet and Breast Cancer: A Systematic Review. *International Journal of Food Sciences and Nutrition*, 66(1), 1-42. doi.org/10.3109/09637486.2014.950207.
- Nachvak, S. M., Moradi, S., Anjom-Shoae, J., Rahmani, J., Nasiri, M., Maleki, V., & Sadeghi, O. (2019). Soy, Soy Isoflavones, and Protein Intake in Relation to Mortality from All Causes, Cancers, and Cardiovascular Diseases: A Systematic Review and Dose-Response Meta-Analysis of Prospective Cohort Studies. *Journal of the Academy of Nutrition and Dietetics*, 119(9), 1483-1500. doi.org/10.1016/j.jand.2019.04.011.

- Najafi, M. N., Salehi, M., Ghazanfarpour, M., Hoseini, Z. S., & Khadem-Rezaiyan, M. (2018). The association between green tea consumption and breast cancer risk: A systematic review and meta-analysis. *Phytotherapy Research*, 32(10), 1855-1864. <https://doi.org/10.1002/ptr.6124>.
- Negri, A., Naponelli, V., & Rizzi, F. (2018). Molecular Targets of Epigallocatechin—Gallate (EGCG): A Special Focus on Signal Transduction and Cancer. *Nutrients*, 10(12), 1936. doi.org/10.3390%2Fnut10121936.
- 日本産科婦人科学会. (2018). 更年期障害. Retrieved December 10, 2021 from https://www.jsog.or.jp/modules/diseases/index.php?content_id=14.
- 日本乳がん学会. (2018). 病理診断 FQ1. 浸潤性乳がんにおける Ki67 評価はどのような症例に勧められるか？評価方法はどのようにしたらよいのか？. 乳がん診療ガイドライン. Retrieved December 10, 2021 from <http://jbcs.gr.jp/guideline/2018/index/byouri/fq1/>.
- Niikura, N., Masuda, S., Kumaki, N., Xiaoyan, T., Terada, M., Terao, M., Iwamoto, T., Oshitanai, Risa., Toru, Morioka., Tuda, B., Okamura T., Saito, Y., Suzuki, Y., & Tokuda, Y. (2014). Prognostic significance of the Ki67 scoring categories in breast cancer subgroups. *Cancer Breast Cancer*, 14(5), 323-329. doi.org/10.1016/j.clbc.2013.12.013.
- Panche, A. N., Diwan, A. D., & Chandra S. R. (2016). Flavonoids: an overview. *Journal of Nutritional Science*, 5; e47. doi.org/10.1017%2Fjns.2016.41.
- Poschner, S., Maier-Salamon, A., Zehl, M., Wackerlig, J., Dobusch, D., Pachmann, B., Sterlini, K. L., & Jäger, W. (2017). The Impacts of Genistein and Daidzein on Estrogen Conjugations in Human Breast Cancer Cells: A Targeted Metabolomics Approach. *Front Pharmacol*, 8, 699. doi.org/10.3389%2Ffrontpharmacol.2017.00699.
- Powles, T. J., Howell, A., Evans, D. G., McCloskey, E. V., Ashley, S., Greenhalgh, R., Affen, J., Flook, L. A., & Tidy A. (2008). Red clover isoflavones are safe and well tolerated in women with a family history of breast cancer. *Menopause Int.* 14(1), 6-12. doi: 10.1258/mi.2007.007033.
- Qiu, S., & Jiang, C. (2019). Soy and isoflavones consumption and breast cancer survival and recurrence: a systematic review and meta-analysis. *European Journal of Nutrition*, 58, 3079-3090. doi.org/10.1007/s00394-018-1853-4.
- Ravishankar, D., Rajora, A. K., Greco, F., & Osborn, H. M. (2013). Flavonoids as prospective compounds for anti-cancer therapy. *The International Journal of Biochemistry & Cell Biology*, 45(12), 2821-2831. <https://doi.org/10.1016/j.biocel.2013.10.004>.

- Renehan, A. G., Zwahlen, M., Minder, C., O'Dwyer, S. T., Shalet, S. & M., Egger, M. (2004). Insulin-like growth factor (IGF)-I, IGF binding protein-3, and cancer risk: systematic review and meta-regression analysis. *Lancet*, 363(9418), 1346-1353. doi.org/10.1016/s0140-6736(04)16044-3.
- Samavat, H., Ursin, G., Emory, T. H., Lee, E., Wang, R., Torkelson, C. J., Dostal, A. M., Swenson, K., Le, C. T., Yang, C. S., Yu, M. C., Yee, D., Wu, A. H., Yuan, J. M., & Kurzer, M. S. (2017). A Randomized Controlled Trial of Green Tea Extract Supplementation and Mammographic Density in Postmenopausal Women at Increased Risk of Breast Cancer. *Cancer Prev Res.* 10(12), 710-718. doi: 10.1158/1940-6207.
- Samavat, H., Wu, A. H., Ursin, G., Torkelson, C. J., Wang, R., Yu, M. C., Yee, D., Kurzer, M. S., & Yuan, J. M. (2019). Green Tea Catechin Extract Supplementation Does Not Influence Circulating Sex Hormones and Insulin-Like Growth Factor Axis Proteins in a Randomized Controlled Trial of Postmenopausal Women at High Risk of Breast Cancer. *J Nutr*, 149(4), 619-627. doi: 10.1093/jn/nxy316.
- Scholzen, T., & Gerdes, J. (2000). The Ki-67 protein: from the known and the unknown. *J Cell Physiol*, 182(3), 311-322. doi.org/10.1002/(sici)1097-4652(200003)182:3%3C311::aid-jcp1%3E3.0.co;2-9.
- Shike, M., Doane, A. S., Russo, L., Cabal, R., Reis-Filho, J. S., Gerald, W., Cody, H., Khanin, R., Bromberg, J., & Norton L. (2014). The effects of soy supplementation on gene expression in breast cancer: a randomized placebo-controlled study. *J Natl Cancer Inst*, 106(9), dju189. doi: 10.1093/jnci/dju189.
- 食品安全委員会. (2006). 大豆イソフラボンを含む特定保健用食品の安全性評価の基本的な考え方. Retrieved December 10, 2021 from <https://www.mhlw.go.jp/stf/seisaku/seisaku/2006/02/dl/h0202-1b.pdf>.
- Singh, B. N., Shankar, S., & Srivastava, R. K. (2011). Green tea catechin, epigallocatechin-3-gallate (EGCG): mechanisms, perspectives and clinical applications. *Biochem Pharmacol*, 82(12), 1807-1821. doi.org/10.1016%2Fj.bcp.2011.07.093.
- Singla, R. K., Dubey, A. K., Garg, A., Sharma, R. K., Fiorino, M., Ameen, S. M., Haddad, M. A., & Al-Hiary, M. (2019). Natural Polyphenols: Chemical Classification, Definition of Classes, Subcategories, and Structures. *J AOAC Int*, 102(5), 1397-1400. doi.org/10.5740/jaoacint.19-0133.

- Teas, J., Irhimeh, M. R., Druker, S., Hurley, T. G., Hébert, J. R., Savarese, T. M., & Kurzer, M.S. (2011). Serum IGF-1 concentration change with soy and seaweed supplements in healthy postmenopausal American women. *Nutr Cancer*, 63(5), 743-748. doi.org/10.1080/01635581.2011.579383.
- Touillaud, M., Gelot, A., Mesrine, S., Bennetau-Pelissero, C., Clavel-Chapelon, F., Arveux, P., Bonnet, F., Gunter, M., Boutron-Ruault, MC., & Fournier, A. (2019). Use of dietary supplements containing soy isoflavones and breast cancer risk among women aged >50 y: a prospective study. *The American Journal of Clinical Nutrition*, 109(3), 597-605. doi.org/10.1093/ajcn/nqy313.
- Verheus, M., van Gils, C. H., Kreijkamp-Kaspers, S., Kok, L., Peeters, P. H., Grobbee, D. E., & van der Schouw, Y. T. (2008). Soy protein containing isoflavones and mammographic density in a randomized controlled trial in postmenopausal women. *Cancer Epidemiol Biomarkers Prev*, 17(10), 2632-8. doi: 10.1158/1055-9965.EPI-08-0344.
- Wang, Q., Liu, L., Li, H., McCullough, L. E., Qi, Y., Li, J., Zhang, J., Miller, E., Yang, C., Smith, J. S. (2014). Genetic and dietary determinants of insulin-like growth factor (IGF)-1 and IGF binding protein (BP)-3 levels among Chinese women. *PloS One*, 9(10), e108934. doi.org/10.1371/journal.pone.0108934.
- Wang, Q., Liu, L., Li, H., Tao, P., Qi, Y., & Li, J. (2016). Effects of High-Order Interactions among *IGFBP-3* Genetic Polymorphisms, Body Mass Index and Soy Isoflavone Intake on Breast Cancer Susceptibility. *PloS One*, 11(9), e0162970. doi.org/10.1371/journal.pone.0162970.
- Wei, Y., Lv, J., Guo, Y., Bian, Z., Gao, M., Du, H., Yang, L., Chen, Y., Zhang, X., Wang, T., Chen, J., Chen, Z., Yu, C., Huo, D., & Li, L.; China Kadoorie Biobank Collaborative Group. (2020). Soy intake and breast cancer risk: a prospective study of 300,000 Chinese women and a dose-response meta-analysis. *Eur J Epidemiol*, 35(6), 567-578. doi: 10.1007/s10654-019-00585-4.
- Wolfe, J. N., Saftlas, A. F., & Salane, M. (1987). Mammographic parenchymal patterns and quantitative evaluation of mammographic densities: a case-control study. *AJR Am J Roentgenol*, 148(6), 1087-1092. doi: 10.2214/ajr.148.6.1087.
- World Cancer Research Fund International. (2018). *World Wide Cancer Data*. Retrieved December 10, 2021 from <https://www.wcrf.org/dietandcancer/cancer-trends/worldwide-cancer-data>.
- World Health Organization. (2018). *Latest global cancer data: Cancer burden rises to 18.1 million new cases and 9.6 million cancer deaths in 2018*. Retrieved December 10, 2021 from <https://www.who.int/cancer/PRGlobocanFinal.pdf>.

- Wu, A. H., Spicer, D., Garcia, A., Tseng, C. C., Hovanessian-Larsen, L., Sheth, P., Martin, S. E., Hawes, D., Russell, C., MacDonald, H., Tripathy, D., Su, M. Y., Ursin, G., & Pike, M. C. (2015). Double-Blind Randomized 12-Month Soy Intervention Had No Effects on Breast MRI Fibroglandular Tissue Density or Mammographic Density. *Cancer Prev Res (Phila)*, 8(10), 942-951. doi: 10.1158/1940-6207.
- Wu, J., Zenq, R., Huang, J., Li, X., Zhang, J., Ho, J. C., & Zheng, Y. (2016). Dietary Protein Sources and Incidence of Breast Cancer: A Dose-Response Meta-Analysis of Prospective Studies. *Nutrients*, 8(11):730. doi.org/10.3390/nu8110730.
- Xiao, Y., Zhang, S., Tong, H., & Shi, S. (2018). Comprehensive evaluation of the role of soy and isoflavone supplementation in humans and animals over the past two decades. *Phytotherapy Research*, 32(3), 384-394. doi.org/10.1002/ptr.5966.