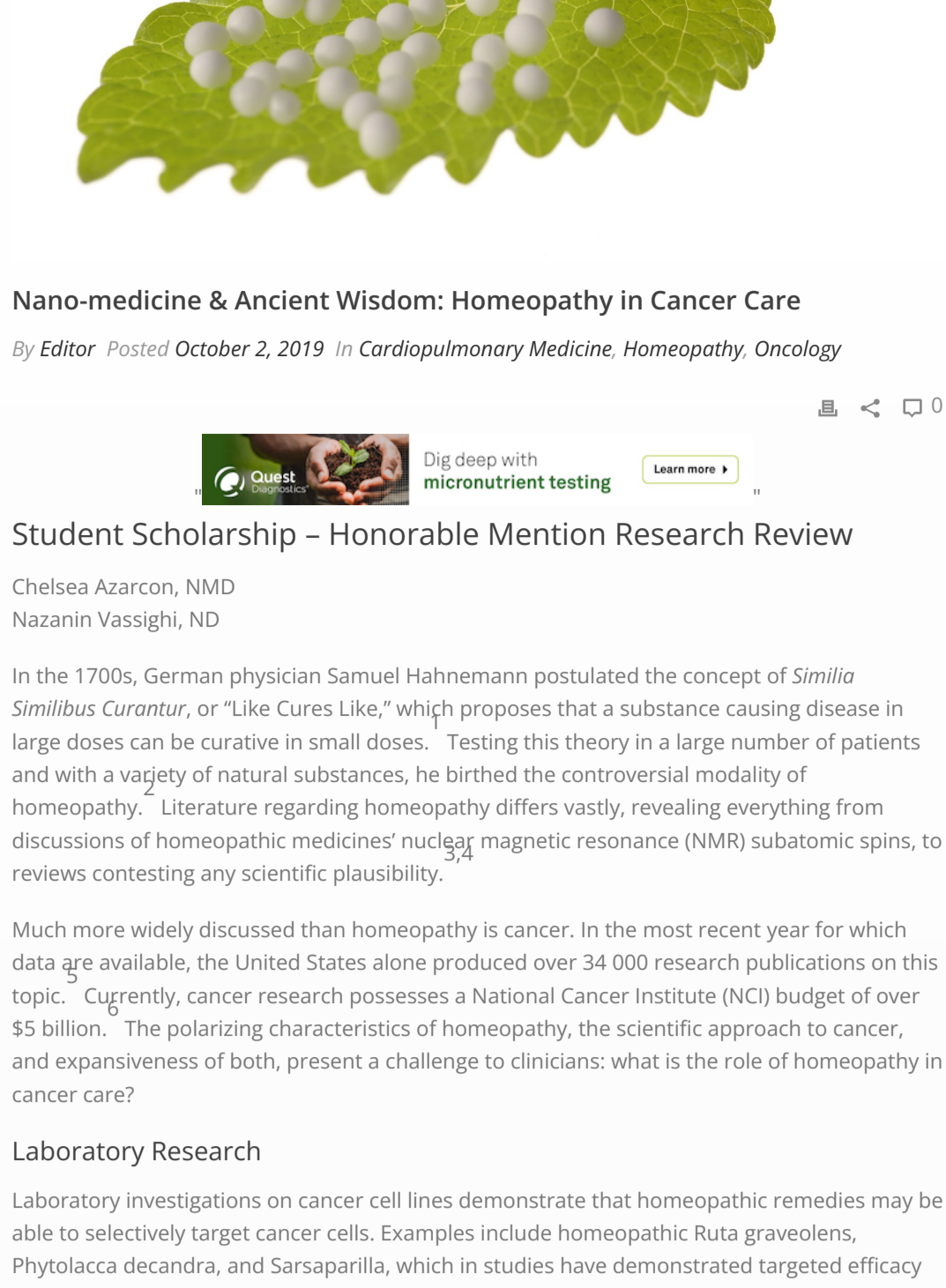


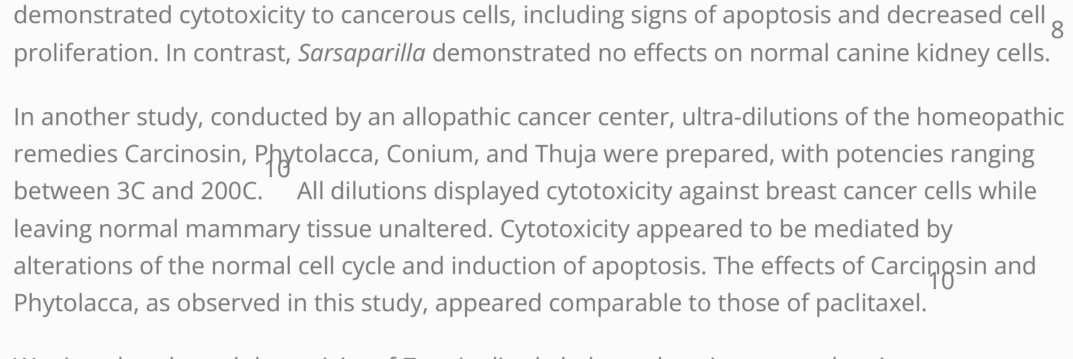
NANO-MEDICINE & ANCIENT WISDOM: HOMEOPATHY IN CANCER CARE

HOME / CARDIOPULMONARY MEDICINE / NANO-MEDICINE & ANCIENT WISDOM: HOMEOPATHY IN CANCER CARE



Nano-medicine & Ancient Wisdom: Homeopathy in Cancer Care

By Editor Posted October 2, 2019 In *Cardiopulmonary Medicine, Homeopathy, Oncology*



Student Scholarship – Honorable Mention Research Review

Chelsea Azarcon, NMD
Nazanin Vassighi, ND

In the 1700s, German physician Samuel Hahnemann postulated the concept of *Similia Similibus Curantur*, or “Like Cures Like,” which proposes that a substance causing disease in large doses can be curative in small doses. Testing this theory in a large number of patients and with a variety of natural substances, he birthed the controversial modality of homeopathy. Literature regarding homeopathy differs vastly, revealing everything from discussions of homeopathic medicines’ nudgy magnetic resonance (NMR) subatomic spins, to reviews contesting any scientific plausibility.

Much more widely discussed than homeopathy is cancer. In the most recent year for which data are available, the United States alone produced over 34 000 research publications on this topic. Currently, cancer research possesses a National Cancer Institute (NCI) budget of over \$5 billion. The polarizing characteristics of homeopathy, the scientific approach to cancer, and expansiveness of both, present a challenge to clinicians: what is the role of homeopathy in cancer care?

Laboratory Research

Laboratory investigations on cancer cell lines demonstrate that homeopathic remedies may be able to selectively target cancer cells. Examples include homeopathic *Ruta graveolens*, *Phytolacca decandra*, and *Sarsaparilla*, which in studies have demonstrated targeted efficacy against glioblastoma multiforme (*Ruta*), human colon cancer (biga), human breast carcinoma (Phytolacca), and human renal adenocarcinoma (Sarsaparilla). Explorations of *Ruta graveolens’* mechanistic effects on the colon cancer (COLO-25) cell line (cells were treated with mother tincture and 30C potency) revealed decreased markers of viability, proliferation, and invasive potential, as well as increased morphological changes characteristic of apoptosis. The authors’ previous investigations demonstrated that both mother tincture and varying potencies of *Ruta* (30C, 200C, 1M, and 10M) had no or little effect on normal cells. Meanwhile, all tested dilutions and mother tinctures of *Phytolacca decandra* and *Sarsaparilla* demonstrated cytotoxicity to cancerous cells, including signs of apoptosis and decreased cell proliferation. In contrast, *Sarsaparilla* demonstrated no effects on normal canine kidney cells.

In another study, conducted by an allopathic cancer center, ultra-dilutions of the homeopathic remedies *Carcinosin*, *Phytolacca*, *Conium*, and *Thuja* were prepared, with potencies ranging between 3C and 200C. All dilutions displayed cytotoxicity against breast cancer cells while leaving normal mammary tissue unaffected. Cytotoxicity appeared to be mediated by alterations of the normal cell cycle and induction of apoptosis. The effects of *Carcinosin* and *Phytolacca*, as observed in this study, appeared comparable to those of paclitaxel.

Wani et al evaluated the activity of *Terminalia chebula* mother tincture and various homeopathic potencies on MDAMB231 (ER-) and MCF7 (ER+) breast cancer cell lines, in comparison with HEK 293 (non-cancerous) controls. While the mother tincture non-selectively decreased cell viability of all cell lines, the remaining potencies, at a 1:10 dilution, decreased viability and growth kinetics of only cancerous cells. The nondiscriminatory effect of the mother tincture was attributed to the presence of the active principle, which is not present in potencies beyond 12C. This furnished a preliminary demonstration of the homeopathic principle that a substance that may be toxic in large doses (mother tincture) may be curative in small doses (potentized). The most efficacious 6C potency was further evaluated by scanning electron microscopy and transmission electron microscopy to reveal nanoparticles, suggesting that homeopathic *Terminalia chebula* acts as a form of nano-medicine.

A review of in-vivo studies reported homeopathic inhibition of tumor progression and size. For example, in a study by Kumar et al., decelerated processes of hepatocellular carcinogenesis and sarcoma growth were observed in mice treated with *Ruta* 300C and Phosphorus 1M. In animal models, homeopathic *Sabal serrulata* has demonstrated the ability to modify parameters of prostate tumors, such as size, incidence, and apoptosis. Laboratory studies also suggest anti-metastatic potential of homeopathic remedies. For example, mice that harbored induced lung metastases received homeopathic *Thuja occidentalis* and developed fewer tumor nodules and exhibited longer life-spans compared to controls.

Clinical Research

Although laboratory research is promising, clinical research remains sparse. Perhaps the most noteworthy application of homeopathy to cancer treatment includes the Banerji protocols of Kolkata, India. Standardized for 400+ years across generations, rooted in local medical tradition, and formulated from clinical observation, Banerji protocols differ from classical homeopathy by simultaneously combining remedies and dosing frequently. These protocols were evaluated by the NCI-BCS program for advancing data in complementary and alternative medicine, which found sufficient evidence to provoke additional research, which is currently ongoing.

At the Banerji Clinic, 21 888 patients presenting with malignancies were managed with Banerji protocols over a 15-year period. Of these cases, the clinic reported 19% of patients experiencing complete tumor regression, and 21% experiencing either an improvement or no change. Affiliates report an average of 120-200 cancer cases treated daily at the Prasanta Banerji Homeopathic Research Foundation, many of which have a poor clinical prognosis and/or are treated with no other therapy. While conventional care does not disqualify a patient from Banerji protocols, a case review reports that, for brain neoplasms, cases treated solely with Banerji protocols demonstrated fewer adverse events than with combination treatment, while maintaining a survival rate comparable to patients using conventional care.

Another study examined the outcome of exclusive treatment with Banerji protocols in 15 patients presenting with intracranial tumors. Six out of 7 patients with glioma responded with complete tumor regression. Preparations used in the protocol were reported to induce survival pathways in lymphocytes and death-signaling pathways in cancer cells. For patients with lung, brain, and esophageal cancers treated with Banerji protocols over a 1-year period, complete tumor regression was reported in 22-23% of patients. During another 1-year period, 33% of patients with brain neoplasms experienced complete tumor regression.

Banerji et al proposed a mechanism for their findings: nano-medicine properties of homeopathy. Nano-medicine is garnering increased popularity as an option for drug delivery in cancer treatment; preparing a material as an ultra-fine particle is thought to increase its bioavailability and its targeting of malignant cells without damaging benign tissue. Nanoparticles of some natural products have already been used in cancer treatment.

Recent research has identified the presence of nanoparticles of source substances in homeopathic preparations. Research also suggests that nano-medicines are effective at much lower doses than their source material—an idea consistent with homeopathic philosophy. The potential strength of homeopathy as a nano-medicine is augmented by the unique interactions displayed by nano-medicines. For example, homeopathic plant tinctures can actually synthesize their own silver or silica nanoparticles, which increases the biological activity of the entire formula. Nanosilicon alone has been attributed with the ability to increase susceptibility of cancer cells to photodynamic death, and in-vitro addition of nano-silica to a natural extract has been shown to increase the apoptotic and growth-inhibiting properties of that extract. The homeopathic process of succussion, in which a remedy is physically agitated, has been shown to further release silicon and silica nanoparticles from the container. The Banerji group suggests that nanoparticles are extremely sensitive to variations, which might explain variability in remedy effects between patients.

While the clinical and theoretical work of the Banerji group is still in academic infancy, a number of systematic reviews have evaluated the role of homeopathy as an adjunctive treatment for conventional care. In such a role, it is used for symptom management and to improve quality of life post-treatment.

A review by Milazzo and colleagues evaluated 6 clinical trials, yielding mixed results. One of these trials, which evaluated the ability of homeopathic single and combination remedies to reduce menopausal symptoms in breast cancer survivors, found significant improvement in general health scores in the intervention group as compared to placebo. However, a subset of the combination remedy group experienced increased adverse symptoms. A randomized controlled trial (RCT) evaluating a popular OTC combination homeopathic formula for the treatment of chemotherapy-induced stomatitis, reported significant reductions in stomatitis severity and duration as compared to placebo. An RCT evaluating the addition of homeopathic remedies to topical cream for alleviating radiation-induced skin reactions found greater reduction in skin hyperpigmentation, heat, and total severity in the intervention group, as compared to the group administered topical cream plus placebo; these outcomes were observed during radiation recovery only. However, an RCT examining the ability of homeopathic remedies to reduce general radiation-related side effects yielded no significant differences between the intervention and placebo groups. A systematic review by Kassab et al reported an additional study of 254 participants, in which a significant benefit of topical homeopathic calendula for radiation-induced dermatitis was observed, as compared to topical triamcinolone.

Worth mentioning is a retrospective study from the Medical University of Vienna, which compared expected rates of survival with actual survival rates of patients with fatal prognoses who received exclusive homeopathic care. Those that were treated with homeopathy, who survived past the observational window of 54-66 months, matched or exceeded expected survival times. Another study from this institution compared the effects of adjunctive, individualized homeopathic treatment among patients undergoing conventional cancer therapies to those undergoing standard treatment without homeopathic intervention. This study, which had a moderate sample size (n=373), found that the intervention group experienced significant improvements in global health status and subjective well-being, as compared to the control group, which exhibited declines in these parameters.

Ancient or Avant-Garde?

Recently, modern chemotherapeutics have begun implementing dosing similar to homeopathic patterns. Known as metronomic chemotherapy (MCT), this burgeoning method utilizes long-term, low-dose chemotherapeutic agents, as opposed to a maximum toxic dose (MTD). The proposed mechanism is stimulation of anti-angiogenic capacities, while observed benefits are decreased toxicity, improved growth inhibition, prevention of metastasis, and effectiveness against drug-resistant tumors.

In animal models receiving MCT, increased survival superior to MTD has been demonstrated, prompting a variety of clinical trials. A recent phase-2 trial, surveying ER- breast cancer patients, reported that MCT was equally effective and less toxic than standard chemotherapy. Clinical trials and meta-analyses have also reported positive results for parameters such as serum tumor markers, survival benefit, response rates, and clinical benefit from the use of MCT in advanced and metastatic breast cancer and metastatic prostate cancer. MCT-inspired low-dose chemotherapy strategies have even begun to be implemented in successful standard approaches. Thus, MCT illustrates that some homeopathic strategies are exhibiting efficacy consistent with homeopathic philosophy, ie, that substances toxic in large doses can be curative in low doses.

Discussion

Critics argue that homeopathy has no benefits beyond placebo. A discussion in *Current Oncology* asserts that most homeopathic trials suffer methodological inadequacy, some are without controls, and the well-designed studies have not been replicated. Suggested reasons for therapeutic benefit include natural course of disease, outside and unreported interventions, the Hawthorne effect, therapist-patient interaction, and reported improvement in order to gain physician approval, all of which can also be observed in evaluations of pharmacologic efficacy.

This criticism does point out challenges for clinical application of the current research. Most homeopathic clinical trials consist of small sample sizes with varying risks of bias, and thus are only suggestive of benefit. Homeopathic study design complicates a straightforward evaluation, as some studies investigate mixed remedies while others investigate isolated remedies. In some studies, remedies are prescribed in an individualized manner, so that many different remedies are evaluated for the same condition, while other studies prescribe a single, uniform remedy for a given condition. Often these parameters co-occur in the same study, making it difficult to determine if classical homeopathy in the clinical setting can be scientifically validated.

Despite these challenges, in-vitro findings, nano-molecular isolates from remedies, and chemotherapeutic demonstration of the homeopathic method suggest potential of these preparations to affect biological change beyond placebo. As some remedies may augment the efficacy and decrease the severity of conventional treatments, most reviews agree that these findings warrant further evaluation. An ethical approach to clinical research would thus entail comparing outcomes of homeopathic treatments combined with conventional care to conventional care alone. Other research possibilities include replicating positive clinical trials with larger sample sizes, correlating positive clinical findings with biological mechanisms, comparing outcomes of classical homeopathic prescribing to a standardized approach, and further exploring the nano-properties of this ancient but active medicine.

References:

1. Encyclopaedia Britannica. Samuel Hahnemann: German physician. Last updated April 6, 2019. Available at: <https://www.britannica.com/biography/Samuel-Hahnemann>. Accessed November 15, 2018.
2. Vassighi N. The Basic Tenets of Homeopathy. (Powerpoint presentation). September 29, 2016. Bastyr University.
3. Van Wassenhoven M, Goyens M, Henry M, et al. Nuclear Magnetic Resonance characterization of traditional homeopathically manufactured copper (Cuprum metallicum) and plant (Gelsemium sempervirens) medicines and controls. *Homeopathy*. 2017;106(4):223-239.
4. Ernst E. Homeopathy for cancer? *Curr Oncol*. 2007;14(4):128-130.
5. Cancer Research: Current Trends & Future Directions. 2016. Elsevier Website. https://www.elsevier.com/_data/assets/pdf_file/0019/230374/Elsevier-CancerResearchreport.pdf. Accessed November 15, 2018.
6. National Cancer Institute. NCI Budget and Appropriations. Updated October 3, 2018. Available at: <https://www.cancer.gov/about-nci/budget>. Accessed November 15, 2018.
7. Frenkel M. Homeopathy in Cancer Care. *Altern Ther Health Med*. 2010;16(3):12-16.
8. Arora S, Agarwal A, Singla P, et al. Anti-proliferative effects of homeopathic medicines on human kidney, colon and breast cancer cells. *Homeopathy*. 2013;102(6):274-282.
9. Arora S, Tandon S. DNA fragmentation and cell cycle arrest: a hallmark of apoptosis induced by *Ruta graveolens* in human colon cancer cells. *Homeopathy*. 2015;104(1):36-47.
10. Frenkel M, Mishra BM, Sen S, et al. Cytotoxic effects of ultra-diluted remedies on breast cancer cells. *Int J Oncol*. 2010;36(2):395-403.
11. Wani K, Shah N, Prabhakar A, et al. Evaluating the anticancer activity and nonparticulate nature of homeopathic preparations of *Terminalia chebula*. *Homeopathy*. 2016;105(4):318-326.
12. Kukarni KB, Sunila ES, Kuttan G, et al. Inhibition of chemically induced carcinogenesis by drugs used in homeopathic medicine. *Asian Pac J Cancer Prev*. 2007;8(1):98-102.
13. Arni H, Anderson N, MacLaughlin WB, et al. Effects of ultra-low dilutions of *Sabal serrulata* on human prostate cancer growth: mechanistic studies. *Altern Ther*. 2009;15:579-580.
14. MacLaughlin BW, Gutsmuths B, Pretner E, et al. Effects of homeopathic preparations on human prostate cancer growth in cell and animal models. *Integr Cancer Ther*. 2006;5(4):362-372.
15. Sunila ES, Kuttan G. A preliminary study on antimetastatic activity of *Thuja occidentalis* L. in mice model. *Immunopharmacol Immunotoxicol*. 2006;28(2):269-280.
16. Bell IR, Sarter B, Koithan M, et al. Integrative nanomedicine: treating cancer with nanoscale natural products. *Glob Adv Health Med*. 2014;4(1):36-53.
17. Pathak S, Kulkarni AS, Banerji P, Banerji P. *Ruta graveolens* induces cell death in brain cancer cells but proliferation in normal peripheral blood lymphocytes: a novel treatment for human brain cancer. *Int J Oncol*. 2003;23(4):975-982.
18. Chikramane PS, Kalita D, Suresh AK, et al. Why extreme dilutions reach non-zero asymptotes: a nanoparticle hypothesis based on froth flotation. *Langmuir*. 2012;28(45):15864-15875.
19. Chikramane PS, Suresh AK, Bellare JR, Kane SG. Extreme homeopathic dilutions retain starting materials: a nanoparticle perspective. *Homeopathy*. 2010;89(4):231-242.
20. Upadhyay RP, Nayak C. Homeopathy emerging as nanomedicine. *Int J High Dilution Res*. 2011;10(3):299-310.
21. Das S, Das J, Samadder A, et al. Biosynthesized silver nanoparticles by ethanolic extracts of *Phytolacca decandra*, *Gelsemium sempervirens*, *Hydrastis canadensis* and *Thuja occidentalis* induce differential cytotoxicity through G2/M arrest in A375 cells. *Colloids Surf B Biointerfaces*. 2013;101:325-336.
22. Milazzo S, Russelli N, Ernst E. Efficacy of homeopathic therapy in cancer treatment. *Eur J Cancer*. 2006;42(3):282-289.
23. Jacobs J, Herman P, Heron K, et al. Homeopathy for menopausal symptoms in breast cancer survivors: a preliminary randomized controlled trial. *J Altern Complement Med*. 2005;11(1):21-27.
24. Oberbaum M. Experimental treatment of chemotherapy-induced stomatitis using a homeopathic complex preparation: a preliminary study. *Biol Med*. 1998;30(4):104-108.
25. Balzarini A, Felisi E, Martini A, et al. Efficacy of homeopathic treatment of skin reactions during radiotherapy for breast cancer: a randomised, double-blind clinical trial. *Brit Homeopathy J*. 2000;89(1):18-12.
26. Kukarni A, Nagarkar BM, Burde GS. Radiation protection by use of homeopathic medicines. *Hahnemann Homeopath J Ind*. 1988;12:20-23.
27. Kassab S, Cummings M, Berkovitz S, et al. Homeopathic remedies for adverse effects of cancer treatment. *Cochrane Database Syst Rev*. 2009(2):CD008485.
28. Pommer P, Gomez F, Sunyach MP, et al. Phase III randomized trial of Calendula officinalis compared with tramolane for the prevention of acute dermatitis during irradiation for breast cancer. *J Clin Oncol*. 2004;22(9):147-153.
29. Gaertner K, Müller M, Friehs H, et al. Additive homeopathy unit at the Medical University of Vienna. *Complement Ther Med*. 2014;22(2):320-332.
30. Frass M, Frenth H, Thallinger C, et al. Efficacy of adjunctive classical homeopathy on global health status and subjective wellbeing in cancer patients – A pragmatic, randomized controlled trial. *Man Ther*. 2015;23(3):309-317.
31. Shaked Y, Emmenegger U, Man S, et al. Preclinical and clinical studies of low dose metronomic (antiangiogenic) chemotherapy for treatment of advanced metastatic disease. University of Miami Health System. Available at: <http://www.med.miami.edu/mmbws/documents/06SpeakerKerbel.pdf>. Accessed November 16, 2018.
32. gov. Clinical Trial Evaluating Metronomic Chemotherapy in Patients With Metastatic Osteosarcoma (GLTO2017). Last updated March 13, 2017. Available at: <https://clinicaltrials.gov/ct2/show/NCT02063983>. Accessed November 17, 2018.
33. Young SD, Whittle M, Noble JC, et al. Phase II clinical trial results involving treatment with low-dose daily oral cyclophosphamide, weekly vinorelbine, and irinotecan in patients with advanced solid tumors. *Clin Cancer Res*. 2006;12(10):3092-3098.
34. gov. Metronomic Therapy in Patients With Metastatic Melanoma. Last updated January 15, 2019. Available at: <https://clinicaltrials.gov/ct2/show/NCT01542255>. Accessed November 17, 2018.
35. Brems-Eskildsen AS, Linnet S, Luczak A, et al. Metronomic chemotherapy is well tolerated, less toxic and as effective as standard chemotherapy. Results from the Xe Na trial: a randomized phase 2 trial combining vinorelbine and capecitabine in the treatment of advanced HER2 negative breast cancer. *Eur J Cancer*. 2016;57(Suppl):215-110.
36. Keibel ES, Kamen DA. The Anti-Angiogenic Basis of Metronomic Chemotherapy. June 18, 2004. Medscape OBGyn & Women's Health. Available at: https://www.medscape.com/viewarticle/480745_7. Accessed November 17, 2018.
37. Liu Y, Gu F, Liang J, et al. The efficacy and toxicity profile of metronomic chemotherapy for metastatic breast cancer: A meta-analysis. *PLoS One*. 2017;12(3):e0173693.
38. Cazzaniga ME, Cortesi L, Ferri A, et al. Metronomic Chemotherapy in Triple-Negative Metastatic Breast Cancer: The Future Is Now? *Int J Breast Cancer*. 2017;2017:1683060.

Nazanin Vassighi, ND is a naturopathic doctor and Assistant Professor of Homeopathy at Bastyr University California (BUC). Dr. Vassighi graduated from Southwest College of Naturopathic Medicine (SCNM) in Tempe, AZ. After completing a general medicine residency at SCNM, she was accepted into a specialized homeopathy residency sponsored by Standard Homeopathic under Stephen Messer, ND, DHAAN. She is an established speaker, and her work has been published in *Homeopathy Today*. In addition to teaching homeopathy at BUC, she serves as faculty supervisor at BUC Clinic, training naturopathic medical students in clinical homeopathy. For more information on Dr. Vassighi, visit www.bastyrclinic.org.

Chelsea Azarcon, NMD, was a 4th-year naturopathic student at Bastyr University California when she wrote this article. Dr. Azarcon's childhood dream was to be a writer. However, a personal health crisis sparked an interest in naturopathic medicine. While obtaining a Bachelor of Science in Biology from Cornell University, she pursued this interest by researching the biological activities of traditional medicinal plants in the Laboratory of Natural Products and Medicinal Chemistry. Dr. Azarcon looks forward to a future of helping chronically ill patients find hope through health.

Advertisement

Advanced HER2 Negative Breast Cancer, Adverse Effects, Antimetastatic Activity, Breast Cancer, Breast Cancer Cells, Cancer, Cancer Treatments, Chemotherapy-Induced Stomatitis, Cytotoxic Effects, DNA Fragmentation, Experimental Treatment, Homeopathic Dilutions, Homeopathic, Homeopathic Complex Preparation, Homeopathic Medicines, Homeopathic Therapy, Homeopathy in Cancer Care, Menopausal Symptoms, Metastatic Breast Cancer, Metronomic Chemotherapy, Metronomic Chemotherapy, Nanoparticulate, Patients With Metastatic Osteosarcoma, Phase 2 Trial, Terminalia Chebula, Thuja Occidentalis L., Triple-Negative Metastatic Breast Cancer, Vinorelbine

RECOMMENDED POSTS

PREVENT GESTATIO... USING TOOLS INCRE... COULD CURRENT HE...

POPULAR POSTS
[Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)

[A Scientific Education: Part 2](#)
[Treatment of Methylaton Deficits in Autism Spectrum Disorder](#)
[The Healing Power of Love: The Hormone, Oxytocin](#)
[Botanical Management of Streptococcal Infections of the Skin](#)
[Book Review: Herbal Medicine From the Heart of the Earth](#)