Abstracts

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knowledge about EMF and molecules' magnetic properties as the constructing elements of bacteria and cells. The most part of previously unexplained facts in connection with procaryotes and eukaryotes division is given. Polymorphism of cells is the product of EMF. This statement is based on crossing over, which has been defined as a genetic material exchange on neighbouring chromatides in the North–South and East–West direction. Thus, it becomes clear that it is due to the EMF forces. This work explains the transportation of various substances through a cell membrane, a process that takes place due to molecules' magnetic properties. It is known that all cells of a somatic organism have characteristic magnetisation—proved by magnetic resonance. Artificial magnetic fields may be the cause of the origin and development of tumour tissues; our further work will present firm proof.

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OP-003

Classical homeopathy in cancer cases—15 years of clinical experiences in the Clinica Santa Croce, Orselina-Lucarno, Switzerland

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Background: The Department of Homeopathy in the Clinica Santa Croce, Orselina-Lucarno in Switzerland was started in 1997 by Dr. Durio Spinedi, and has treated about 6000 patients with various types of cancers. After 15 years of activity, we can confirm that classical homeopathy is highly valuable in the treatment of cancer.

Aim: The aim of the treatment plan is to apply the correct therapy in curable cases and give an efficient and smooth palliative care in advanced and incurable cases. There is a team of 11 homeopathic doctors headed by Dr. Spinedi.

Methods: After a detailed anamnesis (usually taking 3 h) and analysis of the complete history, a treatment plan is made: 1) should find a remedy for the acute mental and physical sufferings—effects of the shock of the diagnosis, operation, chemotherapy, radiation, etc., 2) should find a specific organotrope remedy, if necessary and 3) should find a constitutional and antimiasmatic remedy for long-term treatment. This treatment plan is prepared by the assistant doctor and the supervisor by thorough study and discussion of the anamnesis and the repertorisation.

Treatment: The patients recover in the clinic for a period of 2–3 weeks after which acute problems are treated, first by giving a homeopathic remedy in Q potency and daily visit and observation. Every day, we observe and evaluate the subjective and objective symptoms of the patients and adjust the dose and change the remedy if necessary. After curing the acute suffering, patients are treated by either the organotrope remedy or the constitutional remedy depending on the case, usually by giving the Q potency. After recovery, the treatment continues at home with regular feedback and follow-up of the case.

Conclusion: A paper published by Dr. Matthias Rostock and Dr. Johannes Naumann of 30 months' study and observation of about 259 patients at the Clinica Santa Croce and 380 patients from the conventional oncological clinics affirms that: “We have shown that under homeopathic care sizeable benefits were achieved for patient’s quality of life and spiritual well-being. The improvement was clinically relevant and statistically significant. It could also be seen in symptoms of physical and mental fatigue. Thus our data suggest that classical homeopathic care could complement conventional cancer care to the benefit of patients”.

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OP-004

The antiproliferative properties of Cellfood® on tumour cell lines

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Background: Cellfood® (CF) is an innovative nutritional supplement containing 78 ionic/colloidal trace elements and minerals combined with 34 enzymes and 17 amino acids, all suspended in a solution of deuterium sulphate. We recently demonstrated its antioxidant properties by evidencing the in vitro protection of CF against free radical attacks towards biomolecules and cells, thus suggesting that CF might be a valuable coadjuvant in the prevention and treatment of physiological and pathological conditions related to oxidative stress.

Aims: To investigate the potential use of CF as an antineoplastic and/or chemopreventive agent. Indeed, preliminary studies in vitro have evidenced that CF led to a significant inhibition of cell growth on different tumour cell lines (leukaemia, mesothelioma, melanoma and colon, bladder, lung and breast cancer).

Methods: Quantification of cell proliferation and viability was assessed by the trypan blue exclusion test and by the cleavage of tetrazolium salts by mitochondrial dehydrogenases in viable cells (WST-1 or XTT tests).

Conclusions: It is well known that, in most solid tumours, a metabolic shift from mitochondrial glucose oxidation to the cytoplasmic glycolytic pathway takes place. As a result, suppression of apoptosis (dependent on mitochondrial energy production) and resistance to cell death occur. From our preliminary evidences, we hypothesise that CF encourages the metabolic shift from the glycolytic pathway to the mitochondrial oxidation, thus making cells susceptible to apoptosis. Work is in progress to investigate the biochemical and molecular mechanisms responsible for CF antiproliferative action.

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Conclusions: In this randomised controlled trial, real acupuncture showed significant pain reduction and increased range of motion and seems to be an effective add-on treatment in patients visiting ER for acute back or neck pain.

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OP-034

Effectiveness of acupuncture in controlling pain-related psychopathology following total prothesisation of the knee

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Aim: The aim of this study is to investigate the efficacy of acupuncture on several aspects of the psychopathology related to pain. The study sample was composed of two groups of participants who underwent a procedure of total knee prothesisation: group 1 (25 subjects) received traditional acupuncture while group 2 (25 subjects) served as the control group. We used Barratt Impulsivity Scale 11 (BIS-11), Beck Depression Inventory II (BDI-II), State Trait Anxiety Index X (STAI-X), Brief Pain Inventory short version (BPI-sv), Satisfaction With Life Scale (SWLS). A test-retest design was conducted to analyse the effect of the treatment, and the differences between the two groups were tested by analysis of variance (ANOVA).

No conclusion

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OP-035

Osteopathic manipulative treatment is effective in pain control associated with spinal cord injury

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Background: Pain in patients with spinal cord injury (SCI) is a common occurrence, with an incidence ranging between 65% and 80% of the subjects. One-third of these subjects experience severe pain, and these patients develop allodynia and hyperalgesia. Symptoms potentially originate in any moment of the patient history influencing patient psychological and social functioning. Pain affects quality of life, causes substantial morbidity, with worsening of the disability, and reduced involvement in rehabilitation programmes. Several therapeutic strategies are used, including pharmacological treatment (analgesics, opioids and non-steroidal anti-inflammatory Drugs (NSAIDs)). Pain management in these patients is difficult and complete recovery is rare. Osteopathic manipulative treatment (OMT) is efficacious for the relief of chronic pain related to osteoarthritis and/or inflammatory conditions. Clinical trials on OMT in patients with SCI-related pain, to the best of our knowledge, have not been published.

Aim: The study aims to verify the effects of the association between conventional pharmacological treatment and osteopathic manipulative treatment (OMT) for chronic pain management in SCI. Setting: Spinal Unit, Ospedale Niguarda Ca’ Granda, Milan, Italy; Istituto Superiore di Osteopatia, Milan, Italy.

Methods: A total of 47 patients with SCI were enrolled, 26 with pain of both nociceptive and neuropathic origin and 21 with pure neuropathic pain. Thirty-three patients had a complete spinal cord lesion (ASIA level A) and 14 had incomplete lesion (ASIA levels B, C and D). The patients were subdivided in a pharmacologic group (Ph), a pharmacologic osteopathic (PhO) group and an osteopathic (Os) group. The Verbal Numeric Scale (VNS) was used at various time intervals to evaluate treatment outcomes.

Results: Ph patients reached a 24% improvement in their pain perception, assessed by the VNS scale after 3 weeks of treatment, while Os patients reached a 16% improvement in their pain perception for the same duration. Both treatments per se failed to induce further improvements at later time points. In contrast, the combination of the two approaches yielded, in the PhO group, significantly better pain relief in patients with both nociceptive and pure neuropathic pain.

Conclusions: Our results suggest that the OMT is a feasible approach in patients in whom available drugs cannot be used.

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OP-036

Fibromyalgia, hypoxia and oxidative stress. Why Cellfood?

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Background: Fibromyalgia (FM) is a chronic pain syndrome with increased sensitivity to painful stimuli, accompanied by depression, anxiety, fatigue and sleep disturbances. Despite its high prevalence, its aetiology is still unknown and there are no effective treatments. However, in recent years, a possible pathogenic role of oxygen availability has been suggested, thus opening the doors to a non-pharmacological approach. Indeed, patients with FM showed low muscle oxygenation at least in the ‘trigger points’ and abnormal systemic biomarkers of oxidative stress, respectively. On the other hand, in chronic pain disorders endogenously generated reactive oxygen species may impair spinal cord neuron transient receptor potential V1 and A1 that act as nocisensors, thereby producing systemic pain conditions without central sensitisation through neural cross-talk. Unfortunately, classical antioxidants such as coenzyme Q10 may counteract only partially FM-related oxidative stress that seems generated primarily by an impaired oxygen bioavailability. In this context, in a 6-month single-blind, cross-over, randomised placebo-controlled trial of Cellfood™ (Eurodream, La Spezia, Italy, from NU Science Corporation, CA, USA), a non-addictive, completely non-toxic, unique colloidal formula containing finest all-natural, minerals, enzymes and amino acids from Lithothamnium calcareum was able to significantly improve clinical symptoms and quality of life in FM patients. These effects now can be attributed to the recently demonstrated ability of Cellfood™ to stimulate oxygen consumption and to
improve antioxidant defences under either hypoxia or oxidative stress, respectively.

**Conclusions:** Although further studies must confirm these preliminary data, Cellfood™ appears as a very promising prototype of a novel class of ‘physiological modulators’ that by making available O2 ‘on-demand’ can successfully counteract FM symptoms.

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**OP-037**

Traditional Chinese medicine in Italy: a hospital experience in Turin

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Acupuncture, traditional Chinese medicine (TCM) are considered complementary medical sciences with great social importance in Italy. Further, Italian National Federation of Medical Associations has recognised their role in a common Act in Terni since 2002. Complementary medicine use in Italy is progressively increasing and many regions established public services for such therapies as acupuncture. A TCM outpatient’s clinic was founded in San Giovanni Bosco Hospital and in one of its territorial multidisciplinary centres according to the ‘Italy–China: a Health Bridge’ project supported by ASL 4 and Regional Health Department. In Piemonte, as in other Italian regions, we assist an increasing interest about complementary medicine knowledge and development to give patients and doctors more awareness regarding therapeutic choices. Complementary medicine therapies, TCM in particular, are considered effective treatments with the aim of relieving pain, treating diseases and improving health. Besides, they have a very good cost–efficiency balance and this is a very welcome quality in public medical service. In our centre, we treat patients selected by expert physicians with acupuncture and moxa. TCM activity is developed by recognised medical personnel with an Italian Acupuncture Diploma, supported by nurses, administrative personnel and expert researchers in complementary medicine. Our activity started in September 2007. From 2009 to 2011, 3252 acupuncture sessions were performed treating 383 patients affected mainly by headache or musculoskeletal pain. The plan of treatment includes 1 session a week for 8 subsequent weeks. We investigated the results of treatment by means of the Questionnaire SF-36, a short-form health survey. For the SF-36 Questionnaire, 138 patients were interviewed at the beginning and the end of acupuncture treatment; we observed improvement in bodily pain, social function, role emotional, mental health and mental component summary. Men show generally a higher score before treatment and after treatment only bodily pain improve, whereas women more handicapped before treatment take full advantage after this. Bodily pain has improved in all age groups. Headache patients improve significantly only with respect to bodily pain (other questionnaire dimensions are not significantly affected before treatment). On the contrary, musculoskeletal pain patients show multidimensional improve-

ment and better health perception after treatment as measured by SF-36. Due to successful approval of our activity, we are now coping with a long waiting list up to 10 months. Our centre’s most important aim, at the present time, is to improve knowledge and diffusion of traditional medicines as an effective and useful complement of Western modern pharmacological and surgical therapies.

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**OP-038**

Rosa canina L. extract in the treatment of orthopaedic chronic pain: result of a clinical trial

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**Background:** The in vivo effects of *Rosa canina* extracts are still poorly investigated. Evidence of its efficacy as anti-inflammatory is inconclusive and conflicting.

**Aim:** To verify the activity of *Rosa canina* extracts in patients suffering from chronic hip pain due to arthrosis.

**Methods:** All patients have been planned to be implanted with hip prosthesis, as all previous medical and physical intervention resulted insufficient for the control of the algic and functional symptoms. Crushed *Rosa canina* fruits were first macerated for 12 h in ethanol/water (50/50, v/v) and then percolated. The residual crushed material was subsequently re-percolated three times for 4 h. The extract solutions were concentrated under vacuum at T<50°C. Each capsule contains 350 mg of the extract and 145 mg of unextracted powder. The study design was randomised, double-blind, placebo-controlled and parallel. A total of 219 patients were randomised in blocks of four. For the first 3 weeks, they recorded the assumption of anti-inflammatory conventional drugs in a flush period. Then, they were instructed to take 3 capsules a day for 4 months, each capsule containing rose hips or placebo. Usual care was continued in both groups. Physical and mental status at beginning and at the end of the period were quantitatively assessed by means of the Harris Hip Score calculated by the surgeon and by two different questionnaires (Western Ontario and McMaster Universities Arthritis Index (WOMAC) and Short Form (36) Health Survey (SF36)) filled by the patient.

**Results:** Drop out from the trial occurred for 28 placebo and 20 active group patients, with no significant differences for reason in the two groups. The remaining 81 placebo and 90 active group patients completed the trial at baseline; there were no relevant differences between the two groups for age, gender, body mass index, level of disability and perception of physical impairment and consumption of analgesic. After the 4-month treatment, a decrease in the use of analgesic was observed (1.2 doses decrease per week in patients treated with rose hips and 1.3 in patients given placebo. No statistically significant differences were appreciated in the clinical evaluation (Harris Hip Score) and in the physical and mental status between the beginning and the end of the treatment. This was true for both groups.

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OP-254

The process of methylation in cellular and physiological homeostasis: vascular risk and sublingual formulations with optimal prevention

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In the last decade, homocysteine has assumed a particularly important role not only as an indicator of recovery of the methyl group, but also as a key factor behind a multitude of pathophysiological processes that characterise many chronic diseases with a strong social impact and particularly, cardiovascular. Contrary to what has been believed up to now, according to recent studies, the levels of this substance in the blood should be well below the limit values taken as the normal range, so much so that with values equal to 15 μmol l⁻¹ (limit normality shown in many laboratories) the risk of cardiovascular disease was greater than for subjects with values below 7 μmol l⁻¹. Among the biochemical causes implicated in the genesis of the vascular risk that play a crucial role in the biotransformation is the presence of homocysteine, which is capable of oxidising low-density lipoprotein (LDL) cholesterol, which may follow the attack on the arterial wall and, thanks to the combined reactive oxygen species, result in endothelial dysfunction and ultimately the entire cascade of events that determine athero-thrombosis. The optimal therapy prior to hyperhomocysteinemia is based mainly on the administration of a pool of B vitamins, all involved in the recovery of the methyl groups, which allow the conversion of homocysteine to methionine (folic acid and vitamin B12) or cysteine (vitamin B6 in the way of transsulphuration to glutathione), together with betaine, which allows a complete recovery of the process of remethylation. An ideal formulation for this purpose should ensure the well-balanced intake of all these vitamin cofactors acting to promote an effective process of remethylation, so as to convert as much as possible homocysteine into the non-toxic amino acids cysteine and methionine, and at the same time adequate amounts of nitrogenous bases with a view to an immediate and correct use in the process of physiological cell regeneration. In this context, the administration of innovative release formulations for the sublingual route can provide: (1) a better release system directly to the cells of all the vitamin factors to prevent and reduce hyperhomocysteinemia, such as the administration of vitamin B12, whose bioavailability is often difficult in contrast to the administration via sublingual route of methylcobalamin, the biologically active form of the vitamin, (2) an optimal release of nitrogenous bases bioavailable for the construction and substitution of the nucleic acids and (3) increased oxygenation for optimal production of adenosine triphosphate (ATP).

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OP-255

The effectiveness of external application of Chinese herbs to promote fracture union and soft-tissue healing

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External application of Chinese herbs has been mentioned in classical textbooks of traditional Chinese medicine (TCM) at least since 3000 years. Especially in traumatology, it is a standard therapy, is applied in Chinese trauma hospitals all over the country. Unfortunately in Western countries, the excellent effective of topical application of Chinese herbs is not well known. Establishing it as a standard treatment method, in particular in the fields of traumatology and dermatology, would be an opportunity for a better, all-natural patient care. To enrich the spectrum of integrative patient care and spread knowledge about the effectiveness of external application of Chinese herbs in the case of soft-tissue injury and bone fracture, the presentation of the following clinical data will be proposed as European Congress for Integrative Medicine (ECIM) 2012 lecture: (1) Clinical trial 'In vitro and in vivo assessment of a herbal formula used topically for bone fracture treatment', Peng LH, Ko CH, Siu SW, Koon CM, Yue GL, Cheng WH, Lau TW, Han QB, Ng KM, Fung KP, Lau CB, Leung PC. College of Pharmaceutical Sciences, ZheJiang University, Hangzhou City, ZheJiang Province, PR China; published in Journal of Ethnopharmacology 131, 282-289, Elsevier 2010. Result: FH paste significantly improved bone healing in the rabbit-fracture model, as was indicated by the increases in callus size at weeks 2-5, and the elevations in bone-specific alkaline phosphatase activities at weeks 5-6. (2) Case histories: (a) patient with acute metatarsal V fracture treated with external application of Chinese herbs: sufficient callus formation and walking after 2 weeks, (b) patient, professional soccer player in primary league, with acute Weber ankle fracture; after 10 days able to run, after 4 weeks back to soccer training and after 6 weeks back in the game. (3) Results of a survey of 276 patients with soft-tissue injury treated with a herbal pack. Results: effectiveness: excellent (4.89 points out of a scale of 0-5 points with 0 = 'no effect at all' and 5 = 'excellent effect'), almost no side effects/high tolerability (4.34 points out of a scale of 0-5 points with 0 = 'low compatibility' and 5 = 'excellent compatibility' = no side effects).

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