



Creating international and interdisciplinary collaboration for health

AONM Newsletter April 2015

This month's newsletter highlights the recent AONM conference on the role of infectious pathogens in chronic disease, and marks the beginning of an alliance of the Academy with ArminLabs, whose founder and CEO, Dr. Armin Schwarzbach, is now a member of our Advisory Board. This issue covers the various talks from the March 8th conference, which ranged from ME and Lyme disease through to retroviruses and a spectrum of therapeutic interventions. We also report on Dr. Xandria William's BSIO talk on the early detection of cancer, and have a fascinating guest contribution on the characteristics of far infrared light, and how it can aid in health and detoxification. We finish, as always, with an outlook on interesting upcoming events held by either AONM or affiliated organisations.

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The Academy of Nutritional Medicine is an international and interdisciplinary forum dedicated to advancing nutritional medicine. We aim to integrate the expertise of medical doctors with the skills, knowledge and experience of complementary practitioners. Our mission is to bring cutting-edge information and pioneering therapeutic approaches in nutritional medicine to the fore for the use of naturopathic practitioners, nutritional therapists and the public. For further information on AONM, its clinics and areas of expertise please go to www.aonm.org.



Laboratory Services

AONM arranges testing for patients and therapists, acting as a hub particularly for a number of specialist German laboratories.

We are delighted to announce an alliance with Dr. Armin Schwarzbach, who has his own laboratory in Augsburg dedicated to tick-borne diseases: ArminLabs. Dr. Schwarzbach has also joined AONM's Advisory Board. Please contact AONM for an information pack, advice on which tests would be most appropriate, kits, and details of how to get your blood drawn. We can also organise the courier and transfer of payment to Germany. Please email info@aonm.org, or call 0845 505 1296.

Lifting the Veil – Infectious Pathogens and Their Role in Chronic Disease

The Academy organised a conference called ‘**Lifting the Veil – Infectious Pathogens and Their Role in Chronic Disease**’ on 8th March, attended by over 100 delegates, both from the UK and abroad. This newsletter provides summaries of the presentations, which were all extremely informative and thought-provoking. A DVD of the talks given by Professor Malcolm Hooper, Dr. Armin Schwarzbach, Dr. Judy Mikovits and Dr. Philip Kielman will be available shortly: we will send out an email as soon as it is ready.

Complex illnesses: one cause or a result of many insults?



*Professor Malcolm Hooper,
Keynote speaker*

Professor Hooper gave the keynote speech, providing a profound overview of the conundrum of chronic multisystem disease. He focused specifically on ME, presenting this condition as the result of progressive multisystem illness, with infection very often at its heart.

One of his key charts depicted a river of ME-like symptoms filling

from a series of tributaries including enteroviruses (EV), herpes, other viruses, chemicals, vaccines, as well as intracellular organisms including Lyme Disease, chlamydia, rickettsia and Q fever. Some as the primal cause, and the others perhaps exacerbating the situation, lead to an outflow of insults to multiple systems including cardiovascular, central and autonomic nervous systems, as well as the immune and endocrine systems.

Whilst we have therapies for attempting to tackle some factors, including EV, intracellular organisms and herpes, the crossover and similarity of symptoms can be seen when examining those of Gulf War Syndrome and others, leading to a complex scenario of assessment and treatment. Today’s penchant for

simplistic diagnoses and the focus on labelling them are a cul-de-sac: Professor Hooper explained passionately that the criteria for this process need to be reassessed in order to deal more effectively with the root causes of this growing list of – sadly – all too common dysfunctions.

*Jonathan Cohen MSc, BANT Director, Clinic
Director Centre for Applied Nutrition and Charity
Advisor for MCS Aware*

Lyme Disease: Introduction, Symptoms, and Cardiovascular, Urological and Neuropsychiatric Sequelae

Professor Puri looked at Lyme disease and the diverse



Professor Basant Puri

chronic diseases it can mimic. He introduced his talk by explaining how in the early 70s in Old Lyme in Connecticut there were an unusually high

amount of children with juvenile rheumatoid arthritis; much greater than the national average. Two mothers in particular collated a lot of the information about the victims and one of them was Polly Murray who wrote ‘The Widening Circle’. Dr. Allen Steere from Yale noted how the arthritic attacks peaked in summer and early autumn and that it affected a specific geographical area. All the patients lived in close proximity to each other and all of them lived in the wooded more rural parts of the town as opposed to the town centre. Steere also noted that 25% of the patients reported a skin rash four or more weeks before the onset of the arthritic symptoms. It was also noted that it affected knees, ankles, wrists, TMJ and elbows. This was the point where research and awareness of Lyme disease really began in Modern Medicine, despite this disease having a long history and being present in Otzi, the naturally preserved 5000 year old mummy found in the Tyrol region of Austria.

Professor Puri then explained how borrelia drills into connective tissue, altering the immunogenic presentation. Borrelia produces biofilms, a mucus-like covering that helps to protect them from white



blood cells and antibiotics. *Borrelia burgdorferi* spirochetes express pro-inflammatory lipoproteins on the outer membrane of the borrelia cell wall. These lipoproteins attract neutrophils and are 50- to 500-fold more active inducers of cytokines than lipoproteins of other organisms. The neutrophils then trigger an inflammatory cascade.

Borrelia possesses an enormous amount of DNA itself and as it invades the host's tissue, shedding plasmids, borrelia's DNA gets incorporated within the victim's DNA and an autoimmune disease is initiated.

Professor Puri stressed the difference between the different borrelia strains. *Borrelia garinii* can be passed from birds or rodents usually via a tick, whilst *borrelia afzelii* is more likely to come from a rodent and then get transmitted via a tick or another biting vector. Professor Puri stressed that it was important to test patients for the right type of borrelia.

He also spoke about myocarditis; inflammation of the heart, and heart block, where the electrical conduction of the heart is undermined. As borrelia tends to favour the conduction tissue of the heart, this condition can result. He suggests two weeks of intravenous antibiotics to help tackle this problem, which is also known as Lyme carditis.

Professor Puri also explained how Lyme disease can affect the detrusor muscle, leading to malfunction and an underactive or overactive bladder and loss of control.

He referred to Brian Fallon's work with 200 neuropsychiatric patients. Professor Puri emphasised that almost every psychiatric disorder, including

schizophrenia and dementia, can potentially be caused by Lyme disease.

Lyme disease can be a catalyst for chronic neuro-inflammation in the frontal cortex, memory loss, light sensitivity and difficulty in finding words. It can also be responsible for unexplained back pain, unexplained milk production or 'idiopathic' menstrual dysfunction. So it truly is a multisystem illness, affecting the nervous system, joints, cardiovascular system and gut.

Lyme disease is well known to morph into a cyst form but the structure and form of the cyst may be different when it is in the brain and can resemble ALS lesions. Sarah and John Vaughter have written a book called, 'When ALS is Lyme', covering this subject.

A French study found 9 conjugal cases of ALS, which was strange in itself as ALS is meant to be genetic. Halperin found that in ALS, most exhibited the symptoms of neuroborreliosis, and 9 out of 10 of them tested positive for Lyme disease.

Dr. Alan MacDonald researched the possibility of Lyme disease presenting as Alzheimer's disease and published papers in 2006 and 2007 on this subject. He took DNA samples from the brain of 10 patients who had died with Alzheimer's and discovered borrelia burgdorferi DNA within the DNA of its victims in 7 out of 10 cases. He has also found spirochetal cysts – not the classic spirochete form but the rounded cystic forms derived from the spirochetes - in Parkinson's patients. Professor Puri concluded his presentation by praising the brilliant work of Alan MacDonald and revealing how it was all self-funded and conducted from his lab at home.

Professor Puri's talk gave us a detailed insight into how borrelia can present as so many diverse illnesses. It was most inspiring and packed with information.

Juliet Hayward BA (Hons), MA, NT, DNN

Multiple infections by *Borrelia burgdorferi* and other tick-borne pathogens

Dr. Armin Schwarzbach from ArminLabs in Augsburg, Germany, specialises in the diagnosis and treatment of patients with tick-borne disease. He spoke on Lyme Disease and other tick-borne

pathogens, focusing particularly on the pitfalls of conventional testing and effective alternatives.

Dr. Schwarzbach first covered the ELISA and Western Blot tests, still currently used as a first line of Lyme testing, explaining why they can so frequently show up false seronegativity. He then explained the logic behind using a lymphocyte transformation test (LTT), also called “ELISPOT”, demonstrating (independent) evidence that it has a sensitivity estimated at 84% and a specificity of 94% (with some studies even indicating that it is up to 100%). This is compared to a sensitivity of only 32 - 42% for the ELISA and approximately 60% for the Western blot (despite the high specificity of the latter). The conventional approach (NHS and the US, as well as elsewhere) begins with an ELISA. If this is negative (which it is very likely to be for all the reasons Dr. Schwarzbach described), then patients are not permitted to go on to have a Western Blot anyway.

Dr. Schwarzbach detailed the various subspecies of *Borrelia burgdorferi* and testing for those as well as for co-infections such as *Babesia*, *Bartonella*, *Ehrlichia/Anaplasma*, *Chlamydia pneumoniae* and *trachomatis*, *Rickettsia/Coxiella*, *Yersinia*, *Mycoplasma*. He also covered other bacteria and viruses that may co-occur or be reactivated, e.g., *Yersinia enterocolitica*, Herpes Simplex Virus types I and II, HHV6 and 8, Cytomegalovirus (CMV), *Toxoplasma gondii*, Epstein-Barr-Virus (EBV), and Cocksackie virus. The ELISPOT is available for many of these, and/or PCR (polymerase chain reaction tests). It may also be useful to correlate testing with a CD57 count (which rises with recovery).

A co-infections checklist was described that can be used to target testing. Dr. Schwarzbach even showed examples of patients who had been diagnosed with MS, and who – after being diagnosed using appropriate testing – had recovered after being treated for Lyme Disease.

The last part of his talk covered therapeutic options.

Gilian Crowther MA (Oxon), NT/ND, mBANT, CNHC reg.

Plague: The scourge of microbial infections and viruses – particularly retroviruses – in chronic disease



Dr. Judy Mikovits

Dr. Judy Mikovits gave a scintillating talk on how microbial infections and viruses trigger chronic disease, particularly emphasising the role of retroviruses and zoonotic transmission exposures. She explained how retroviruses integrate into the genome, becoming part of the host: as much as 15% of the human genome is made up of endogenous retroviruses that are not replication competent. The difficulty, however, is when these retroviruses are activated. They can, in turn, trigger inflammatory responses that cause severe neurological damage. Dr. Mikovits highlighted how recombination events can generate replication-competent retroviruses, and that additional human gamma RVs may be involved in the pathogenesis of neuroimmune disease and cancer. “Recombination events in animal and human cells can generate families of infectious related gamma retroviruses.” Clinical features of patients infected with human retroviruses are very similar to those found in a host of neuroimmune diseases, from ME and MS through to ALS and many others.

Gilian Crowther MA (Oxon), NT/ND, mBANT, CNHC reg.

Natural therapeutic interventions for patients with chronic infection



Dr. Philip Kielman

Dr. Philip Kielman covered some of the natural therapies available to support Lyme disease. He reviewed the pharmaceuticals available and why these are ineffective in many cases of chronic Lyme. The importance of detox-

ification and immune system support was emphasised, alongside the use of antimicrobials in the fight against bacteria, viruses, fungi, parasites and other co-infections, so frequently part of a Lyme profile. Dr. Kielman ran through some of the natural products that are available to support the body's healing processes, as well as their pharmaceutical equivalents. The audience was shown an interesting pilot study which used TOA-free (tetracyclic oxindole alkaloid-free) Cat's Claw, in an effort to reduce the symptoms associated with Lyme Disease. This study demonstrated the success rate of the group treated with the TOA-free cat's claw as compared to the control group. The talk ended with a reminder to the audience of both the importance of individualised treatment for each patient and holistic approaches to recovery.

Judy Rocher, Nutritional Therapist and Education Manager at Rio Trading, a sponsor of this conference



Rio Trading has kindly offered 20% off trade prices on all products except the Cowden protocol to all conference delegates. To take advantage of this offer, please quote code LYME20 when placing your order.

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Charity Events

Fibroduck Foundation

The Fibroduck Foundation (www.fibroduckfoundation.com) are working hard raising funds to support fibromyalgia research. The



chosen study will be carried out by Prof. B. Puri and Dr. J. Monro. The research study aims to test the hypothesis that fibromyalgia may be associated with latent viral infection. The cost of the proposal is £26,000. The charity is run solely by patients and so all help is very gratefully received. To

date the charity has raised just over £10,000 and, on the day of the conference, Dr. Judy Mikovits donated all proceeds from the sale of her book, *The Plague*, to the Foundation.

Donations can be made very simply by 'Text Giving':
DUCK30 £3 to 70070, or DUCK05 £5 to 70070, or DUCK10 £10 to 70070 or DUCK20 £20 to 70070

Lyme Challenge



Dr. Armin Schwarzbach taking on the Lyme Challenge

Two very enthusiastic volunteers, Sally and Asa, ran the Lyme Disease Challenge at the Lifting the Veil conference. The Lyme Disease Challenge is a grassroots social media campaign set to run throughout March and for as long as it is supported. Throughout the day Asa and Sally encouraged delegates and speakers to take part in the challenge in order to help raise awareness of Lyme Disease. A huge thank you to you ladies!! For more details and opportunities to donate, please see <http://www.LymeDiseaseChallenge.org/>

BSIO Talk: Detecting Cancer



Dr. Xandria Williams gave a most interesting talk on 2nd February 2015 hosted by the BSIO – British Society of Integrative Oncology. Dr. Williams, who has degrees in chemistry and is a qualified nutritionist, has been researching ways of providing early detection of cancer, and offering patients support. Dr. Williams started her talk by describing how cancer is a process that begins with very early change in normal cell function, meaning cancerous activity can be detected long in advance of the usual markers/examinations if very sensitive

Getting FITT with Far Infrared

assays are used. This enables practitioners to give advice at an early stage if the tests suggest oncogenesis, even if there is no detectable tumour or other cancer marker. Dr. Williams explained how important nutrition and lifestyle changes are in cancer at whatever stage it is detected. People can be so frightened of cancer that they ignore it, and Dr. Williams emphasised that it is a degenerative disease that can be prevented or managed in non-toxic ways. This can be done by taking steps to reduce or eliminate the predisposing factors in our lives, altering our lifestyle to one that supports us in maintaining or restoring good health and having tests that indicate whether the cancer process has begun, and whether there are indicators of abnormal activity that can be addressed at an early stage. Dr. Williams encourages feelings of being in control and not overwhelmed, as well as taking time to consider all the options.

She explained the markers that can be used to detect whether an active cancer process is underway. She described two panels of tests which she calls CA 1 (Phase 1) and CA 2 (Phase 2). Preliminary tests for detecting Phase 1 of the cancer process should include tests for predisposing factors, covering many different factors such as nutrition, toxins and specific organ problems so the practitioner can give tailored advice on lifestyle and diet. The Phase 1 test panel is also intended to help the client detect the very earliest signs that Phase 2 of the cancer process has started.

The second test panel – CA2 – should follow from the first if there is an indication of a cancer process. It gives more detailed information on the process and helps the therapist to determine how to structure the support protocol. The tests cover the whole body rather than focusing on just one aspect such as a single tumour, because Dr. Williams believes the purpose is to restore homeostasis – the normal healthy function of the cells throughout the entire organism. There are abundant natural remedies that can help to restore these imbalances and this advice is best given by a professional healthcare practitioner.

Dr. Williams' book, 'Detecting Cancer' (reviewed in the January 2015 AONM Newsletter) discusses these panels and their contribution to the early detection of cancer.

*Pamela Rochford, B.A.(Hons) PGCE
DipHom PCH MARH*

The connections between the Infrared spectrum and the mitochondria for detoxification and health are particularly striking. With their deep involvement in the mitochondria in particular, AONM members were fascinated to learn more: Mark Givert, founder of Get Fitt (Far Infrared Thermal Therapy), held a seminar on the technology for a small group of members at the end of last year.

Far Infrared (FIR) Thermal Therapy is known to be an effective treatment for detoxification, with the latest research showing it to improve vascular endothelial function and blood circulation by upregulating endothelial nitric oxide synthase (eNOS) and thus nitric oxide production (which relaxes the blood vessels). It has been used in conditions such as end-stage heart disease, protection against oxidative stress, inhibition of tumour growth and mitochondrial biogenesis.

FIR energy consists of invisible wavelengths of light (photons) that heat objects directly without having to warm the surrounding air, hence the name 'radiant heat'.

The three types of infrared rays

The infrared spectrum is 0.76 – 1,000 microns (a micron = 1/1,000,000 of a meter), and this is divided into three categories according to wavelength: near infrared, mid infrared and far infrared.

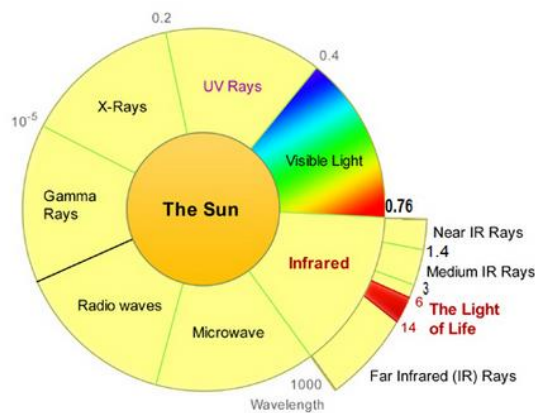
Near infrared is the shortest wavelength through to far infrared, which is the longest. The far infrared band is not visible to the human eye, it can be seen with an infrared camera, and we can also feel it (as heat). The sun produces approximately 60% of its energy in the FIR band of the light spectrum, and our atmosphere allows FIR rays to reach the earth's surface in the range of 7 to 14 microns, often called the "Light of Life" (see diagram below). Even though this band of light is not visible to the human eye, it can be seen with an infrared camera, and we can also feel it (as heat). The sun produces approximately 60% of its energy in the FIR segment of the light spectrum, and our atmosphere allows FIR rays to reach the earth's surface in the range of 7 to 14 microns. When

warmed, the earth radiates FIR rays in the same range, with a peak output at 10 microns.

The infrared electromagnetic spectrum

Wavelengths of light are usually measured in microns because the measurements involved are so miniscule (a micron = 1/1,000,000 of a meter).

The infrared spectrum is 0.76 – 1,000 microns, and this is divided into three categories according to wavelength, cf. the diagram below illustrating the three infrared bands:



- Near Infrared: 0.76 – 1.4 microns
- Infrared A (IR-A) (0.00076mm - 0.0014mm)
- Mid Infrared: 1.4 – 3 microns (IR-B) (0.0014mm- 0.003mm)
- Far Infrared: 3 – 1,000 microns (IR-C) (0.003mm – 1.00mm)
- 1 micron = 0.001mm

FIR energy generated by the body

Our bodies generate FIR energy, too: it radiates through the skin at 3 to 50 microns, with the most output at 9.4 microns. Palms emit FIR energy in the range of 8 to 14 microns.

When the human body is heated by FIR rays, the atomic activity in our cells is increased and heat can be generated. Research carried out by the Nobel Laureate Albert Szent-Gyorgi (and many others after him) strongly indicates that light can alter metabolic and cellular function. Our tissues normally produce FIR energy for warmth and improved circulation. Body tissues that need a FIR “boost” to aid healing will selectively absorb FIR rays (i.e. photons). After

transmitting FIR energy to the tissues, the remaining rays pass onwards without any detrimental effects.

FIR penetrates the body to a greater depth than conventional saunas

FIR energy penetrates the body’s tissues to a depth of over one inch, exerting rotational and vibrational motion in the bonds that form the molecules (including the water molecules). It also resonates with cellular frequencies. Absorption is close to 93% of the FIR waves that reach the skin.

Traditional saunas rely on hot air having direct contact with the skin to heat the body. FIR saunas create penetrating heat and mildly warm air (that only heats the skin superficially). Only 10% of the heating action of a FIR sauna is used for the air, leaving over 90% available to directly heat the body. This crucial difference means that sweating can be induced at temperatures as low as 36°C – much gentler on patients with heat intolerance (so common in multisystem disorders) than conventional saunas that operate at between 65 -100°C.

A clear role in mitochondrial health

The 2012 article by Vatansever and Hamblin describes how FIR may be opening the ion channels (especially calcium channels) that are extremely common in both inner and outer mitochondrial membranes, thus increasing mitochondrial respiration, and suggests the underlying mechanism is likely to be alterations to cell membrane potential and mitochondrial metabolism.

Patients have certainly reported improved mitochondrial function when tested with, for instance, the Acumen ATP profile before using FIR saunas/cocoons and then after a period of therapy, such as six months later. Studies are currently underway to elucidate the mechanism of action more exactly, but clinical evidence of improvement is its own testimonial, as substantiated by Dr. Sarah Myhill et al in their 2013 article in the International Journal of Clinical and Experimental Medicine: “... high levels of pesticides or volatile organic compounds can be treated by far-infrared saunas (FIRS), which have also been shown to have other beneficial effects in fibromyalgia and other illnesses.”

Mark Givert, Founder of Get Fitt Ltd
(<http://www.get-fitt.com>)

Upcoming events

Lyme Conference, Holland, 10th – 11th April 2015

With Dr. Dietrich Klinghardt, Dr. Armin Schwarzbach, and other experts.

For details, please go to:

<http://www.invintro.eu/en/content/conference-2015>

Cell Symbiosis Therapy Introductory Seminar, 25th April 2015

This is a detailed introduction to a unique mitochondrial therapy, originally from Germany. This full-day seminar will cover the evolutionary background to the therapy, reasons for mitochondrial blockage and failure, and strategies for restoring mitochondrial health. It is counted as a training module in the full “CST” training. The seminar will run from 09.00 to 17.00 and is priced at £65, with additional discounts for BANT, NNA and AONM members.

Please go to <http://www.aonm.org/events.html>

or <http://www.eventbrite.co.uk/e/mitochondrial-magic-cst-introductory-seminar-with-gilian-crowther-registration-15139724323>

For further details and registration, please contact gilian@aonm.org or call Gilian Crowther on 0786 772 6387

Naturopathic Clinical Diagnostics Tools, 26th April 2015

The British Naturopathic Association (BNA) and the General Council and Register of Naturopaths (GCRN) are holding a workshop for practitioners providing diagnostic and therapeutic tools for practice.

For further details and to book, please see:

<http://bna.gcrn.org.uk/events/gcrn-2015-study-day/>

The Ketogenic Diet in Practice, 11th May 2015, 6.00 - 8.30 pm

Dr. Damien Downing will explore the emerging evidence for the use of a high fat, very low carbohydrate diet alongside conventional treatment. This event is organised by the BSIO and will take place at the Holiday Inn, London Bloomsbury.

For details and to book, please go to:

<https://www.eventbrite.co.uk/e/the-ketogenic-diet-in-practice-tickets-14941300833>

NorVect 2015 Vector-Borne Diseases Conference, 30th - 31st May 2015

The key focus of NorVect is Lyme Disease. World experts will be speaking at this unique conference in Norway, including Professor Garth Nicolson.

Please see: <http://norvect.no/conference/>

Complementary Cancer Support, 20th June 2015

In conjunction with the BSIO, Dr. Xandria Williams will be giving a one day seminar on complementary cancer support. The event is open to both practitioners and interested members of the public and will be held in a central London location. Please check www.bsio.org.uk for further details.

Environmental Medicine: Addressing environmental influences on health in clinical practice, 23rd - 25th June 2015

The Institute of Optimum Nutrition (ION) is running a new three-day course on Environmental Medicine, taught by members of the BSEM (British Society of Ecological Medicine).

For further details, please see:

<http://www.ion.ac.uk/civicrm/event/info?reset=1&id=734>

Please contact us at any time if you are interested in learning more about our services, or exploring how we could work together: info@aonm.org/ 0845 505 1296, or go to www.aonm.org

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