

Creating international and interdisciplinary collaboration for health

AONM Newsletter June 2022



Now summer has arrived we are all enjoying returning to normality and recovering in every sense. The Academy has been working hard in the background to contribute in any way it can. We are excited to have launched mitochondrial tests with a specialist laboratory in Germany, and this edition follows on the last, where we described the ATP Profile, to spotlight our Mitochondrial Health Index. We have summarised the three webinars held recently in our Mitochondrial Webinar Series, with Professor Koenig from the mitochondrial lab in Germany, Dr. Sarah Myhill, and AONM's Gilian Crowther. This newsletter also covers the inspirational Long Covid Day held by Biolab, the very sad passing of the luminary in the Lyme and PANS/PANDAS landscape, Dr. Charles Ray Jones, the myriad of fascinating events ahead in this second quarter as well as the launch of the AONM shop..

As always, we welcome your feedback: please contact us on info@aonm.org.

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1. Biolab's Long COVID Day – an inspiring spectrum of insights and research

Biolab's Long COVID Day on March 25th 2022 was a highly informative and very well-received occasion.

Dr. Rachel Nicoll PhD gave a series of stunning lectures based on her extensive research into Long Covid, interwoven throughout the day in four segments. She began by giving the NICE and NHS definitions of Long Covid, identifying the lack of uniformity in definitions both in the UK and around the world. She surveyed the research studies into Long Covid in the UK and their funding, as well as the dedicated clinics that have opened around the country. This first presentation also covered the symptoms recognised by the NHS, and the much wider range of conditions that have been reported, as well as prevalence and risk factors.

Dr. Nicoll's further presentations throughout the day looked in great detail at the organs and systems that can be affected and lead to hypoxia and other complications, including cardiovascular issues. Her medical hypotheses on the mechanisms of Long Covid were fascinating. She elaborated on the retroviral associations, mentioning the work of the (sadly recently deceased) Professor Luc Montagnier's paper showing that RNA fragments of retroviruses were found in the SARS-CoV-2 genome.



LONG COVID DAY

Exploring the science of Long COVID and discovering how experienced practitioners provide treatment strategies for their patients

You can find references and many of her presentations (including from Biolab's conference last year, "Mitochondria Day") at The Health Education & Research Trust, www.hert.org.uk.

The second speaker was Dr. Siegfried Trefzer, a private GP with a busy practice in Uckfield. He has seen multiple long Covid patients, many of them with very complex conditions, such as pulmonary thromboembolism, new onset myalgia or widespread endothelial damage with MCAS. He described the anti-inflammatory and anticoagulation therapeutics he uses, as well as initiatives to improve cell signalling. They cover a wide spectrum, from specific pharmaceuticals to IVs and phospholipids,, magnesium, glutathione, NAC, ginkgo biloba, vitamin C, resveratrol and much more.

Dr. Yassine Bendiabdallah from Zen Health covered the systemic approaches he uses in the management of Long Covid. He divided them into several categories: reducing chronic inflammation, supporting the mitochondria, and targeting MCAS (mast cell activation syndrome). He emphasized viral reactivation and detailed the therapies he uses, also elaborating on a wide range of initiatives to address sleep issues, anxiety and neuroinflammation, as well as GI support. He additionally gave an overview of ozone therapy, mitochondrial IV infusions and LDN (low-dose naltrexone).

Professor Robert Thomas (Bedford and Addenbrookes, and Cambridge University NHS Hospitals) held a talk entitled "Is there an influence of gut health and nutrition on Covid and its vaccination?", covering the UK Phyto-V National Nutritional Intervention Study. This was a randomized double-blind placebo-controlled trial evaluating the influence of a phytochemical-rich food capsule and a specific probiotic on clinical outcomes among individuals with Covid-19 viral infection. He discussed the benefits of pre- and probiotics and the antiviral properties of polyphenol-rich foods, with impressive details of the effects of the phytochemical-rich purified food supplement used. References and a description of the study are available at www.Phyto-v.com.

Dr. Sarah Myhill's presentation focused on the management of depleted energy in Long Covid. She discussed the links between M.E. and Long Covid,, describing the effects of anaerobic metabolism and the

production of lactic acid, which directly inhibits mitochondrial function. She gave an overview of the nutritional guidelines she recommends, highlighting the new edition of her book "Paleo-Ketogenic: The Why and the How", and the raw materials that the mitochondria need daily for the enzyme systems to work. Much of this can be found on her comprehensive website <https://www.drmyhill.co.uk/>.

Gilian Crowther from AONM gave a presentation entitled "Restoring cellular homeostasis: Therapeutic strategies for Long COVID". It was divided into three sections: iron dysregulation, viral coinfections, and hijacked mitochondria. She gave specific advice on the herbal/nutraceutical remedies that might be suitable in each of these categories. Her presentation also touched on photobiomodulation, the avoidance of EMFs, as well as further resources to explore.

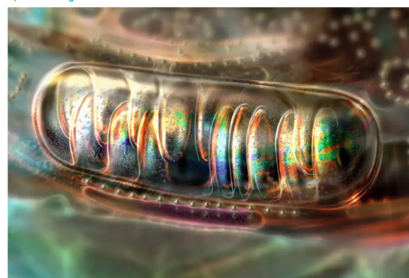


Long Covid Day Speakers

Dr. Damien Downing in his presentation "Treating Long Covid" discussed the strategies of the Orthomolecular Medicine News Service, for which he has been a contributing editor for many years (<http://orthomolecular.org/resources/omns/index.shtml>), explaining the similarity of some symptoms of Covid to acute induced scurvy. He focused particularly on ongoing aberrant immune cell regulation in the airways of sufferers, and the benefits of IV vitamin C. He gave details of a breath work programme that has had good success, and the importance of vagal nerve stimulation to enhance the cholinergic anti-inflammatory pathway.

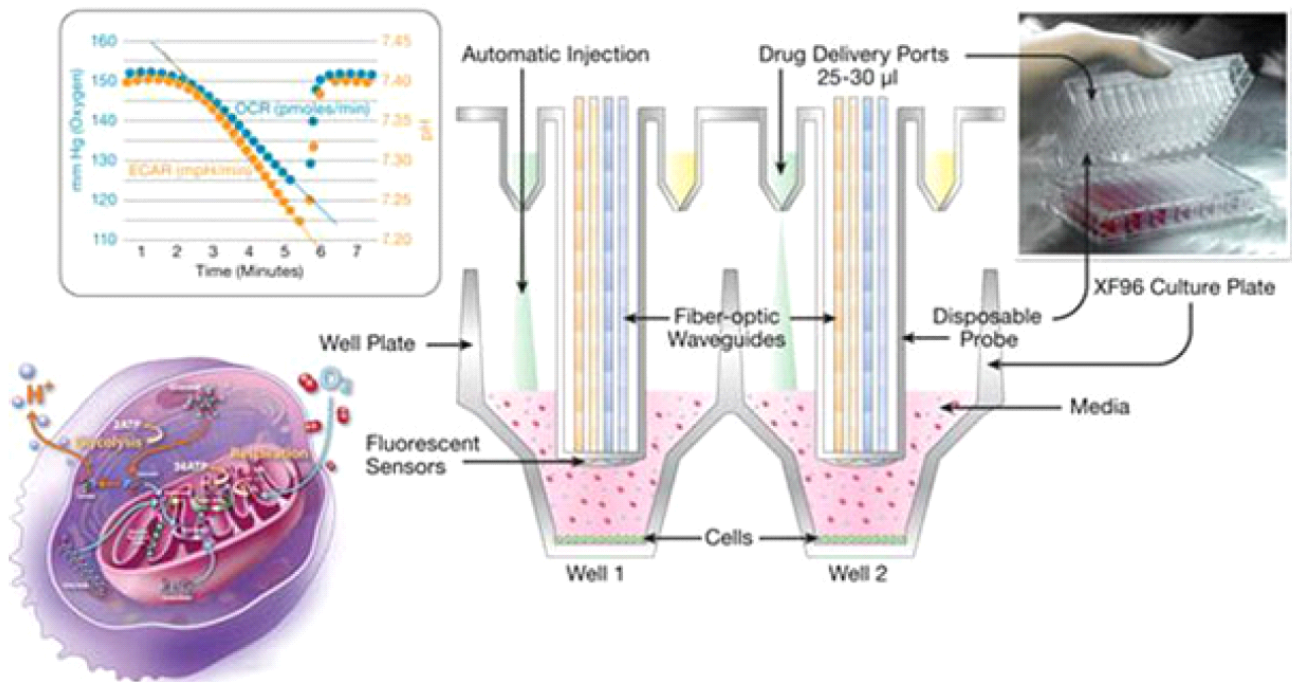
Please email Mark Howard CEO, Biolab, if you would like to purchase access to the recordings and presentations of this unique conference: conference@biolab.co.uk

2. Spotlight on AONM's new Mitochondrial Health Index



Since its introduction in 2006, Seahorse XF technology has been used in over 7,400 [peer-reviewed publications](#).

Measuring Oxygen Consumption Rate (OCR) and Extracellular Acidification Rate (ECAR)



The Seahorse XF analyzer measures the two ATP generating pathways of the cell. The cell consumes oxygen, produces CO₂ and excretes (H⁺) protons that acidify the media.

Source <https://pubmed.ncbi.nlm.nih.gov/22373163/>

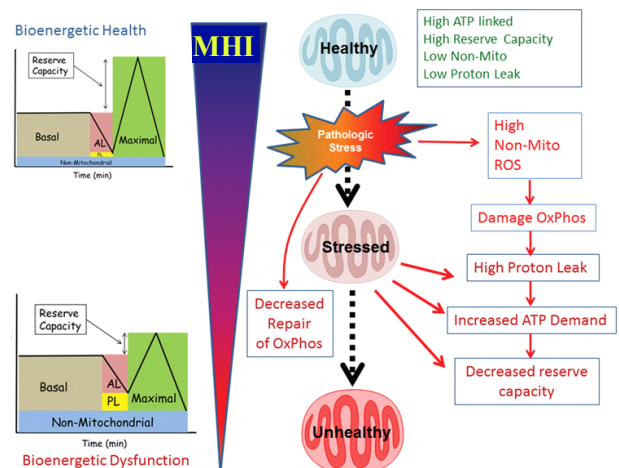
The power and utility of Seahorse XF technology allows researchers in a wide variety of application areas to better understand their cellular models and make ground-breaking discoveries about the critical role of metabolism in a wide variety of diseases.

It is this technology that is used for the Mitochondrial Health Index that AONM now offers. Parameters from this cellular mitochondrial function assay give insights into different aspects of mitochondrial function. They are interactive and serve as a sensitive indicator of the response of cells to oxidative stress and the metabolic constraints associated with their role in health and disease.

Healthy subjects have a high MHI with high ATP-linked respiration, high mitochondrial reserve capacity and low proton leak. The mitochondria are maintained by regenerative biogenesis. A sub-healthy mitochondrial population accumulates functional defects that can to a certain extent be repaired by mitophagy. Chronic metabolic stress induces damage in the mitochondrial respiratory machinery by progressively decreasing mitochondrial function; this manifests as low ATP-linked respiration, low reserve capacity and high non-mitochondrial (e.g. ROS generation) respiration. These inefficient, damaged mitochondria exhibit increased proton leak and require higher levels of ATP to maintain organelle integrity, which increases basal oxygen consumption. Chronic metabolic stress also promotes mitochondrial superoxide generation leading to increased oxidative stress, which can amplify mitochondrial damage, the population of unhealthy mitochondria and basal cellular energy requirements. The persistence of unhealthy mitochondria damages mitochondrial DNA, which impairs the integrity of their biogenesis programme, leading to a progressive

deterioration in cellular function. These developments can all be identified by changes in different parameters of the MHI profile. The level of the MHI (calculated based on a specific algorithm that factors in all the parameters) can be used as a marker for comparison of improvement over time.

The markers analysed in the MHI include: **basal respiration rate, mitochondrial ATP turnover, proton leak, maximum respiration rate, reserve capacity, non-mitochondria rate, and calculation of the overall Mitochondrial Health Index.**



MHI as a dynamic measure of the response of the body to stress.

Source: <https://pubmed.ncbi.nlm.nih.gov/24895057/>

Further information and sample results are available on the AONM webpage: <https://aonm.org/mitochondrial-testing/>, including webinars from our mitochondrial webinar series: <https://aonm.org/mitochondria-webinars/>. Please do contact us if you are interested in learning more about this, the ATP Profile, or any of the supplementary mitochondrial markers now available from AONM/MMD.

3. Summary of our recent Mitochondrial Webinar series.

Professor Koenig from MMD, the laboratory with which AONM is now running mitochondrial testing, went through the key new tests, the ATP Profile and the Mitochondrial Health Index (MHI). She described the different markers and how they are interpreted. It is important to remember that the ATP Profile is a test of the



mitochondria in a resting state, whereas the MHI analyses mitochondrial performance under a standardised level of stress. The MHI is able to reveal the degree of upregulated reactive oxygen species in the cell/mitochondria, whether or not the electron transport chain is compromised, whether the mitochondria are intact or not, whether there is sufficient ATP on demand or not, and a number of other parameters. Particularly informative is whether there is excess ATP being used in the cytosol, outside the mitochondria: this suggests that the cell is actively struggling with infection and/or contaminants, as it reflects the oxidases being used to tackle them.

Professor Koenig will cover the supplementary markers available soon in a future webinar.

Gilian Crowther gave a webinar on April 26th called “Mitochondrial Magic: Tips for revitalising your mitochondrial health”. She covered the various mitochondrial pathways that may become compromised. Topics included were macro- and micronutrients, membranes, oxidative stress, composition and mass of the mitochondria, and obstacles along the electron transport chain. Gilian discussed many disruptive factors that need to be removed for mitochondrial recovery, and then went into the initiatives that can be useful depending on the pathways that need support.



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Dr. Sarah Myhill gave a superb presentation on May 12th entitled “How is mitochondrial dysfunction linked to chronic disease, and what can we do about it?”. She talked about the various aspects that need addressing before you are before you are in fit state to tackle the mitochondrial engine. “Fuel in the tank” is the

key pillar: she referred particularly to her updated book “Paleo-Ketogenic: The Why and the How” and the benefits of ketones, as the fermenting upper gut. The next section covered the raw materials the mitochondria need daily for the enzyme systems to work, as well as findings from the mitochondrial testing she has done over the years.

The thyroid and adrenal energy delivery mechanisms were the next stage in her sequenced description of mitochondrial repair. As she concluded “To improve mitochondrial function, you have to do it all, and you have to do it in the right order.” Dr. Myhill referenced other crucial books of hers in this regard: “The Energy Equation: From the naked ape to the knackered ape”, “Diagnosis and treatment of CFS/M.E.” – subtitle “It’s mitochondria, not hypochondria”, as well as “The Infection Game” and “Ecological Medicine”.

Recordings of all three webinars in AONM’s mitochondrial series are available here, together with their slides: <https://aonm.org/mitochondria-webinars/>

4. Obituary: Dr. Charles Ray Jones

The paediatric Lyme and PANS/PANDAS specialist MD Dr. Charles Ray Jones sadly passed away in May 2022.

AONM is indebted to him for his huge expertise, especially in the field of infection-triggered neuropsychiatric disease, which is still so little understood in the UK. Please see this very heartfelt ILADS obituary (International Lyme and Associated Diseases Society, of which he was a long-term member), and an extract below that from “Under our Skin”, in which he appeared:

<https://www.ilads.org/ilads-mourns-the-passing-of-charles-ray-jones-md/>

<https://mailchi.mp/a7b837ab7fdf/big-sale-on-lyme-disease-films-9022217>

AONM held a webinar with Professor Shimasaki just last week: “Can Infections Really Trigger Neuropsychiatric Disorders?”, which we would like to dedicate to the very great Dr. Jones: <https://aonm.org/view-past-webinars/>

AONM TESTING SERVICES

Helping practitioners identify real causes of illness

Testing available for a range of chronic illnesses covering:

Lyme Disease and co-infections

Tests of mitochondrial function

Cancer monitoring: Testing for circulating cancer cells as well as apoptosis of cancer cells by natural and other substances to help practitioners determine effectiveness of ongoing treatment

PANS/PANDAS: Assisting practitioners to identify whether an individual’s neurological and/or other symptoms could be caused by an autoimmune dysfunction

Food intolerances - various tests available

+44(0)3331 210 305 info@aonm.org

5. AONM Shop

AONM is opening its own online shop so as to enable easier test ordering, for those who wish to order in this way, as well as provide a range of nutritional products that can be of health benefit.

To start with we are launching two different health items - PhytoBox and Britt's Superfoods.

PhytoBox



PhytoBox offers high-quality food supplements in capsule form. The focus is to support the immune system in chronic disease, inflammation, environmental / toxin pollution, ME/CFS, as well as other multi-infection or multi-system disease.

The products are of very high quality and the range of scientifically based supplements is characterised by the highest possible compatibility and bioavailability.

PhytoBox products are hypoallergenic*. This means that almost all of the products are also suitable for sensitive people, allergy sufferers and those with food intolerances. They are:

- Free from unnecessary additives and preservatives
- Free from sweeteners and flavourings
- Free from lactose, fructose** and gluten
- Free from artificial colourings and coatings
- Free from trans fats and hardened fats
- Free from flow and release agents
- Free from fillers
- Vegan

The range of 11 products covers:

Phytobox 1: Support for Borrelia and intracellular infective pathogens.

Phytobox 2: Support for neuroborreliosis and neuropathic dysfunctions.

Phytobox 3: Breakdown of pleomorphic forms and support of detoxification & purification.

Phytobox 4: Anti-inflammatory and pain relieving.

Phytobox 5: Synbiotic with prebiotic.

Phytobox 6: Support in chronic opportunistic virus infection, especially herpes vividae.

Phytobox 7: Support in cytokine storms.

Phytobox 8: Support in Bartonella infection.

Phytobox 9: Support in Chlamydia Pneumoniae infection.

Phytobox 10: NK cell support.

Phytobox 11: Support in Cocksackie and Echovirus infection.

Visit the AONM shop to find out more <https://aonm.org/shop/phytoBox/>

Britt's Superfoods



Britt's Superfoods are a range of juices that are field-grown, organic and freshly frozen. They include some of the most nutritious superfood juices on the market. Because they are frozen immediately after harvesting and juicing, they are natural energy boosters and packed full of all the antioxidants, amino acids and enzymes needed for good health.

Powdered wheatgrass and other juices generally do not retain all of their vital nutrients, but these juices are delivered to your door in frozen daily sachets, ready to be stored in your freezer and be taken daily.

For example, the raw, organic, fresh wheatgrass juice contains higher levels of chlorophyll than any other green vegetable. Due to its exceptionally high nutritional content, fresh wheatgrass juice can contribute to healthy energy levels, reduce tiredness and fatigue, boost physical and mental performance and support a healthy immune system.

The fresh, raw Elixir Vitality juice is an incredible antioxidant and provides a natural energy boost. The high levels of vitamins and nutrients it contains also boost the immune system, support blood cell development and assist with healthy skin, nails and vision.

The range also includes barleygrass, ginger and turmeric, rainbow juice, beetroot, kale and many more to choose from.

See <https://aonm.org/shop/frozen-juice-shots/> for more information.

* In single products, ingredients are obtained from potentially allergenic substances (e.g. plant extracts). These products are marked accordingly.

** In general, the products are free of fructose, but may occasionally contain natural fructose from individual ingredients (e.g. plant extracts).

6. Upcoming events



AONM Webinar with Dr. Eva Sapi Potential Connection of Borrelia Infection and Breast Cancer

12 July 2022 at 7pm Please register at:
https://us02web.zoom.us/webinar/register/WN_Q-sHmlu0QK6LsFx024wQNw

AONM Webinar with Dr. Armin Schwarzbach Description

The Growing Evidence Between Infections and Cancer
28 July 2022 at 7pm Please register at:

https://us02web.zoom.us/webinar/register/WN_d-WiN6srSsOOPJZiHa32AA



Association of Naturopathic Practitioners

Webinar with Dr. Armin Schwarzbach

"Viruses and their multisystem impact: testing, tracking and therapy"

9 June, 6.30 pm

<https://theanp.co.uk/members-area/webinars/>



Integrative and Personalised Medicine Congress: "The Future of Medicine: promoting whole-person, patient-centred health"

You will find AONM/Arminlabs at stand B3 in the Britten Room

To REGISTER for a FREE exhibition pass, or purchase a conference delegate pass [Click here](#)

Dr. Armin Schwarzbach will be speaking on

"Viral and bacterial infection in multisystem disease, and reactivation by SARS-CoV-2"

1.00 - 1.30pm on Saturday 18 June 2022

Entry to this talk is free of charge

Klinghardt Institute



28 June 2022 *A.R.T.1 Beginners Online Programme*

22 November 2022 *A.R.T.3 Advanced Online Programme*

See www.klinghardtinstitute.com for further details and to register

BSEM



Annual Scientific Conference - Mould and Mycotoxins: Infections, Allergy and other Pathologies

24 June 2022, 9.00 am - 5.00 pm (followed by the AGM)

<https://www.bsem.org.uk/events/conf22>

Special discounts granted for AONM:

BSEMNM35 gives a concessional in-person rate: £140 (from £175)

BSEMVIP gives a concessional streaming rate: £100 (from £130)

Please enter the above code after selecting the number and type of ticket under "promo code"

Book at <https://www.bsem.org.uk/events/conf22>

[Download flyer](#)

Cavendish Conference Centre W1G 9DT

Training Day 12: Detoxification – Beyond the Liver (hybrid event)

25 June 2022 10.00 am - 5.00 pm

<https://www.bsem.org.uk/events/training-day-12-detoxification>

Hallam Conference Centre

44 Hallam Street, London W1W 6JJ

IHCAN Summit



Dr. Dietrich Klinghardt: "Lyme, EBV, Long COVID, Mercury and Mould illness – similar symptoms, but different therapeutic approaches"

Debbie Cotton: "COVID and the gut microbiome"

Dr. Tom O'Bryan: "Neuroinflammation and Neurodegeneration: Early Biomarkers of a Brain on Fire"

Dr Cheryl Burdette: "The Science of Food – Lowering the Inflammatory Load"

25 June, 10.00 - 5.00

155 Bishopsgate, London

<https://www.ihcansummit.co.uk/>

AONM will have an exhibition stand, please visit us there!

For more detailed information about AONM please see our website

www.aonm.org

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