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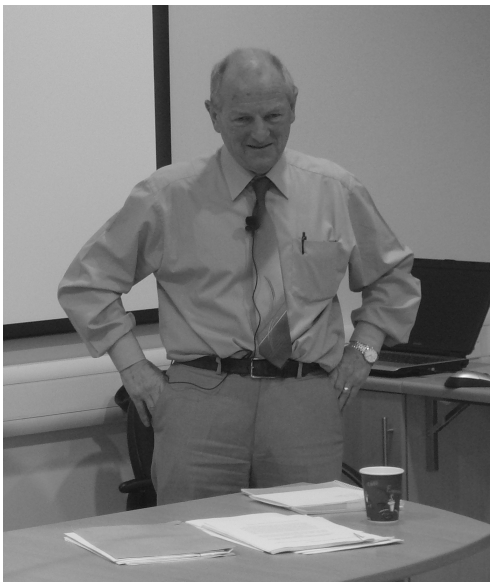
Myalgic Encephalomyelitis: Politics, Medicine and Science



We were interested to learn from Professor Hooper that he is a Yorkshireman, born and bred in Thurnscoe and Goldthorpe, and that he attended Wath Grammar School. He also told us that his politics come from South Yorkshire! He explained that his main discipline is Medicinal Chemistry, which concerns the design and development of novel drugs for the treatment of disease. Chemistry, biochemistry, pharmacology, vaccines, microbiology and some aspects of medicine are involved.

His interest in M.E. began with the Merck Medical Reference Manual of 1999 which talks of **syndromes of uncertain origins**. In 1997 Professor Hooper had become involved with the GWVs (Gulf War Veterans) many of whom had been given a diagnosis of Chronic Fatigue Syndrome. Then his interest in Gulf War Syndrome (GWS) escalated to additional involvement with ME-CFS, MCS (Multiple Chemical Sensitivity) and Fibromyalgia, which have many features in common with GWS. Organophosphate poisoning is also part of this story.

The challenge is that these are all complex chronic multi-system and multi-organ illnesses which are puzzling because the results of routine laboratory tests are strikingly normal. (A show of hands amongst the audience revealed that we are all 'completely normal'!) The other explanation is, said Professor Hooper, that if you are not 'normal' you are 'crackers', and this unfortunately is how people with M.E. have been labelled: because the tests are 'normal', the illness is 'all in your mind'.

It is important to be clear about terminology. **People with M.E. have a neurological illness.** The World Health Organisation clearly classifies myalgic emcaphalomyelitis under the International Classification of Diseases (ICD) 10 – G93.3 as a **neurological disorder, meaning muscle pain with inflammation of the brain and spinal cord.** However, the allowed names currently are Post Viral Fatigue Syndrome (PVFS) and Chronic Fatigue Syndrome.

- **M.E.** describes a pathophysiological condition which clinicians and scientists can immediately understand (i.e. inflammation of the brain and spinal cord, allied to muscle pain).
- **PVFS** describes the **cause** of the illness, that is, a virus, plus a symptom, that is, fatigue.
- Chronic Fatigue Syndrome (**CFS**), however, describes simply a symptom. This is subjective, provides no clinical signs for diagnosis, and opens the door to misrepresentation. And to describe their illness as simply 'fatigue' is insulting to patients.
- **Myalgic encephalopathy** is another term which has emerged recently. This is too vague a term, simply meaning a pathology in the brain, and it lacks precision.

The term CFS first came about in 1988 in the United States after a very divisive vote at the All American Chronic Fatigue Syndrome Conference. Much later, in 2007, Professor Anton Komaroff, one of the group who agreed to this name, stated **"None of the participants in creating the 1988 CFS case definition and name ever expressed any concern that it might TRIVIALISE the illness. We were insensitive to that possibility and WE WERE WRONG."**

The concern now is that 'CFS' is used to impose the psychiatric model of illness and to direct ineffective and inappropriate treatments. It also creates confusion in selecting patients for research studies. And it provides room for deception.

The deception

The deception is that **fatigue syndromes** are classified in **another chapter** of ICD which covers Mental and Behavioural Disorders: ICD-10 at F48.0.

After the introduction of the term CFS, the transition from neurology to psychiatry / psychology became possible. People with M.E. are lumped together as suffering from a 'fatigue syndrome' and treated as for mental and behavioural disorders - this is where the deception lies. Take out 'chronic' and you have a 'fatigue syndrome'; take out 'syndrome' and you have 'chronic fatigue'. Both of these lie within the F48.0 classification, that is, as mental and behavioural disorders. Hence people with M.E. are wrongly assessed and inappropriate treatments recommended.

What M.E. is not

M.E. is NOT a fatigue syndrome classified under ICD-10 F.48.0 for mental and behavioural conditions. In fact the proposed ICD-10 6th revision F.48.0 expressly excludes ME/CFS.

Neither is it Chronic Fatigue (the description of M.E. as Chronic Fatigue was retracted by the American Medical Association in 1990 as an error which had to be corrected.)

It is not 'burnout'. The measurable cortisol response is different in people with M.E. from those in burnout cases (Mommersteeg demonstrated this).

It is not 'deconditioning'. This has been demonstrated by Burnett in Australia and also by Julia Newton (see later).

It is not clinical depression. John Richardson, for instance, and also Bruce Carruthers and Byron Hyde, are all absolutely unambiguous in stating that M.E. is not clinical depression. A study in Harvard in 1990 was unable to correlate a degree of neurological abnormality with a degree of depression.

The Evidence for Inflammation in Myalgic Encaphalomyel<u>ITIS</u>

The evidence is in pathology. It is in the **physiology** and **biochemistry** and in the work done in **immunology** and in **genetics**. Hence there are four strands of evidence:

Dr Abhijit Choudhuri now works at Romford in Essex but some of his important work was done in Glasgow. He was able to look at post mortem tissue from people with M.E. who had died (these were suicides).

He found classical markers for **severe inflammation in the dorsal root ganglia of the spinal cord**, where sensory nerves enter the spine. In the case of a young man of 32 who had had M.E. for 20 years, he found inclusion bodies called corpora malacea which are generally found only in people over 40 and in cases of Down's syndrome. In the young woman of 26 who had had M.E. for 6 years, he found inflamed active cytotoxic T lymphocytes, in other words a severe inflammation.

These tests cannot be done on living people. In these cases, both of which were suicides, the coroner was interested only in the cause of death. However the mother of the young woman insisted that tissue be provided for Dr Chaudhuri to look for an encaphalomyalitis. The coroner could have refused but to her credit the tissue was allowed to be taken.

The message from this is that as the disease progresses the markers change with time.

Brain and spinal cord tissues cannot be taken from living people and so Peterson and Whitemore have set up an Institute in the U.S. which is creating **tissue banks** from patients who have had M.E.

The summing-up of this proof for the term 'encaphalomyelitis' is in Dr Chauduri's words 'pathology does not lie'.

Professor Hooper next showed a slide of Sophia Mirza, a young woman who recently died and whose post mortem showed extensive inflammation of dorsal root ganglia of the spine consistent with a major viral infection. Sophia's story is told in the 2006 International Invest in M.E. Conference (the dvd of which is available in the Sheffield M.E. Group library) and is available at
http://www.investinme.org/Article-050%20Sophia%20Mirza%2001.htm
The 2007 Conference DVD (also available in our library) can be ordered from
http://www.investinme.org/International%20ME%20Conference%202007%20-%20DVD%20Orders.htm

Oxidative Stress

Vance Spence is an eminent researcher who has completed major research projects into M.E. despite having the illness himself. His work has shown that levels of measurable oxidative stress are raised in people with M.E. and are highest in those people with M.E. who have the most severe symptoms. (Kennedy, Spence, McLaren, Hill and Underwood – Free Radical Biology & Medicine 39 [2005] 584-589)

This research examined biomarkers: isoprostanes (compounds generated by the oxidation of unsaturated fatty acids), HDL (high density lipids), GSH (glutathione) and oxLDL (oxidised low density lipids) within the blood vessels of muscle tissue. These are all **oxidative stress markers**. Varying levels of these substances, compared with levels from the control groups, indicated massively raised oxidative stress in people with M.E, Gulf War Syndrome and Organophosphate poisoning. This is expensive research needing a large team.

Professor Hooper then showed images of muscle tissue after 10 minutes of rest, then after 10 minutes of muscular activity, then after a further 10 minutes of rest. The slides showed markedly increasing levels of free radicals at all three stages, with the **most free radicals being present after the rest period**.

This appears to be a picture book illustration of why Graded Exercise (GET) is harmful. The images are of muscle tissue in healthy people but the inference is that exercise in people with M.E. is in effect **adding another burden to people who are already carrying a high level of oxidative stress**. The research illustrated in the slides was completed by McArdle at al in 2005 and used by Spence et al. Richards, Wang and Jelinek in the Archives of Medical Research 38 (2007) 94-98 describe the result of oxidative damage to red blood cells something that underlies the test by Les Simpson of NewZealand.

Another paper has recently been published which shows raised oxidative stress levels in blood vessels. In other words, it is present throughout the body systems. A **straw poll of the audience s**howed that a number of us had been prescribed graded exercise; none seemed to have found it helpful but **several had found it harmful**. Professor Hooper said that there is certainly a place where some of the techniques of GET might be helpful, but **the time when people are ill is not the time**.

The other evidence is from Magnetic Resonance Spectroscopy (MRS). This is a marvellous modern technique which looks at the chemistry of the cells in the living brain. Professor Hooper's next slide was an MRS image showing significantly raised levels of choline in the brain. This indicates **abnormal phospholipid metabolism consistent with infection and inflammation**. All this has been demonstrated in the work of Professor Chaudhuri (reported in our newsletter of Summer 2003) and Professor Puri (reported in our newsletter of Summer 2007).

Polyunsaturated fatty acids have a major role in membrane stability and function and are important throughout the body systems. The work was done by Chaudhuri et al in 2003 and 2004 and by Professor Basant Puri et al in 2002. A straw poll of the audience showed that a significant number of us took essential fatty acid (EFA) supplements, and of those, most seemed to be finding it helpful. **The EFAs support membranes throughout the body which are under stress from an inflammatory disease of viral origin**.

Immunology

Kenny De Meirleir is a Belgian physician who has researched the disordered pathways of RNA-regulated protein kinase (PKR) and the enzyme 2-5A RNA Synthetase which underlie the inflammatory responses to viral and other microbial infections in M.E. This work is published in De Meirleir and Englebienne's book **Chronic Fatigue Syndrome: A Biological Approach** (this is a scientific manual and too expensive to purchase for our library). When there is a viral infection, the body responds by setting in action these complex biochemical pathways which lead to the destruction of the virus; however it seems that in M.E. the pathways have been diverted, as this work shows**. Kenny De Meirleir has uncovered a range of disorder in these pathways which clearly point to the need for subgroups in the understanding of M.E..**

Professor Hooper then looked at the work of **Dr Jonathan Kerr** ("another good lad. I know Jonathan quite well"). Jonathan is a geneticist and a medical microbiologist. His first ground-breaking paper looked at the gene expression in peripheral blood mononuclear cells from patients with 'chronic fatigue syndrome' and of the 9,000 genes examined he found that 16 genes were differently expressed in these patients, compared with the control groups. The genes in question were associated with

- immunology (as in the research of Richardson and later, Anne Cunningham)
- nerve function (already established in ICD-10 G.93.3),
- mitochondrial function (as in the work of Dr Shapiro and Dr Sarah Myhill)
- gene expression already linked with OP poisoning (as in a recent report by the Royal Commission on Environmental Pollution)
- and lastly with transcription factors (which are the 'on/off' switches of the genes).

Jonathan Kerr's second study has only recently been completed, and this involved 47,000 genes from 25 CFS patients and 50 normal blood donors, matched for age, sex and geographical location. Using two techniques (the Microarray technique and Real-time PCR technique) 83 genes were found in this study to be involved with CFS.

This study clearly identified **apoptosis** in many of the blood cells in the CFS group. This is the process by which, If a cell gets so badly infected that it cannot function, the body destroys that cell ('programmed cell death') – which in illness is a helpful metabolic process.

These findings are consistent with previous studies with similar indications in

- Immunity, inflammation and infection
- Apoptosis (cell death)
- Neurological disease
- Mitochondrial dysfunction
- Viral activity, particularly Epstein Barr Virus
- Cancer

What does all this mean?

Summing up the genetic connection in his book **Chronic Fatigue Syndrome, Genes and Infection: The ETA-1/Op Paradigm** (Haworth Press 2003 – another expensive scientific manual) Roberto Patarca-Montero points to the areas in which a single gene can cause problems:

- early T-cell activation (immune system irregularity)
- irregular bone and calcium metabolism (people with M.E. and people with OP poisoning sometimes show signs of early osteoporosis)
- Cardiovascular system
- Liver function
- Skin
- Kidney
- Lung
- Gut
- Nervous system
- Reproductive system
- Auditory system

John Richardson MB BS

Unpicking all this will be a massive scientific challenge, but fortunately there are excellent scientists working in the field. Professor Hooper himself was inspired to become involved when John Richardson invited him to lecture on Gulf War Syndrome. Richardson, who died in 2002, published a major clinical work in 2001 which represents a lifetime of dedicated study and patient care. This is **Enteroviral and Toxin Mediated Myalgic Encaphalomyelitis / Chronic Fatigue Sundrome and Other Organ Pathologies** (Haworth Medical Press 2001).

This is a book for clinicians, not scientists, and any clinician should read it. It demonstrates the multi-organ, multi-system nature of the illness, and that it is largely viral origin, particularly involving enteroviruses (Coxsacchie B is a major culprit). Dr Richardson also found that poisoning by some environmental chemicals may give rise to symptoms similar to ME but that differences can be distinguished by careful history taking and appropriate blood tests, for instance for lindane and DDT.

Richardson was able to show that depression can be clearly distinguished from ME using PET scans, which were quite new at the time. It is bad medicine and poor science to try to assert that ME is depression.

All these conclusions have been validated and extended by other research scientists and clinicians and are described in the DVD of the 2006 Invest in ME Conference (available from the Sheffield M.E. Group library). See also www.investinme.org.

Byron Hyde

In 1992 Hyde, Goldstein and Levine published a comprehensive book on M.E. for the Nightingale Research Foundation. This is **The Clinical and Scientific Basis of Myalgic**

Encaphalomyelitis Chronic Fatigue Syndrome. Its 74 chapters cover all aspects of ME/CFS, researched with the most modern techniques, detailing numerous clinical studies, the multi-system effects, and effective treatments. Much of the information has been available for many years. It is a massive compendium, dedicated to Dr John Richardson, from whom Professor Hooper learned so much about M.E.

Problems of Diagnosis and Definition

Professor Hooper went on to describe the several different schemes for diagnosis which have been devised over the years, none of them satisfactory. These include the London definition, the Oxford definition, and the Fukuda definition of 1994, which is the one which is mainly insisted on for research purposes in the U.K. **This is why published research does not mention M.E.** All of these were limited and did not satisfactorily address the organic basis of the illness. In fact, some investigations are not allowed under these definitions and so many missed diagnoses occur.

The Canadian Consensus Panel Criteria for M.E. of 2005 remedies these defects. They were put together by experienced North American and European clinicians and published by the Nightingale Foundation in Canada. Whereas Fukuda was not a clinician but a research scientist in the American Center for Disease Control, these guidelines were put together by a team which actually reached consensus (rare in the world of ME/CFS!)

The older Fukuda Definition characterises M.E. as a 'medically unexplained condition' which in fact is not the case. It is **difficult to explain, but not unexplained**. Fukuda lists many symptoms which are common in M.E. but also common in other illnesses (sore throat, swollen lymph nodes, unrefreshing sleep, etc). This is not adequate, and ignores vital research studies. Worse still, the Fukuda definition obliges all research workers to use 'CFS' and not 'M.E.' in publications, and this has proved damaging for reasons noted earlier.

CANADIAN CONSENSUS PANEL CRITERIA FOR M.E. – 2003
MAJOR COMMON FEATURES

- FATIGUE
- POST-EXERTIONAL MALAISE & FATIGUE
- SLEEP DISORDERS
- PAIN
- NEUROLOGICAL /COGNITIVE MANIFESTATIONS (2 or more)

AT LEAST ONE SYMPTOM FROM 2 OF FOLLOWING CATEGORIES

- AUTONOMIC – NMH, POTS, Delayed Postural Hypotension, Low plasma and/or RBC volume, Vertigo, Light Headedness, Extreme pallor, Intestinal or Bladder disturbances with IBS or Bladder dysfunction, cardiac Arrhythmias, Vasomotor Instability, Respiratory Irregularities
- NEUROENDOCRINE – Thermostatic instability – heat/ cold intolerance, Anorexia or Abnormal Appetite, Marked weight change, hypoglycaemia, loss of adaptability/ tolerance to stress and slow recovery from stress, emotional lability
- IMMUNE – tender lymph nodes, sore throat, flu-like symptoms, general malaise, development of new allergies or change in status of old ones, hypersensitivity to medications and/or chemicals.

NMH = Neurally mediated hypertension
POTS = Postural orthostatic tachycardia syndrome

Any clinician worth his salt should be able to make a diagnosis with this information which is condensed to 20 pages in the summary document available through several websites, see http://www.cfids-cab.org/MESA/ccpc.html. It can also be borrowed from our library. But the simplest test for M.E. is just to say to the patient 'stand over there for ten minutes'. People with M.E. know how difficult this is.

Sadly the newly published N.I.C.E. guidelines in the UK ignore the Canadian criteria.

More evidence

Julia Newton, who works in Newcastle, works with Primary Biliary Cirrhosis (BPC), a liver disease. Some of her patients suffered from fatigue, so she took a group of patients with CFS, as well as a control group, for her study of patients with PBC (published Newton et al QJM advanced access 2007; July 7:1-8). Newton looked at the autonomic nervous system using a scale which she developed called the Compass scale (a complex scale involving simple tests for blood pressure, heart rate and other markers - it is now widely used).

In the CFS group of patients, 75% showed dysautonomic associated fatigue, DAF, (dysautonomia), which was far higher than in the other patient groups. This research showed that other people do have dysautonomia, but people with M.E. have it 'in spades'. (Dysautonomia = dysfunction of the autonomic nervous system for which a simple test is not being able to stand upright and still for a length of time (~10 minutes).) In her paper, Newton points out that there is **no correlation with deconditioning or with psychosomatic fatigue** (i.e. with F.48.0). Therefore, **those claims are not valid for people with M.E.** People with M.E. are not deconditioned. People with M.E. are not suffering from a psychosomatic illness.

The fact that in Newton's study, not all the M.E. patients had dysautonomia once more indicates **the need for sub-groups**.

Leonard A. Jason is another American scientific investigator who has pointed out the need for sub-groups, and **Roberto Patarca-Montero** (JCFS 2000:7(4):1) is another investigator with the same message: "the sorting of patients into subpopulations .. is helping in the design and interpretation of clinical trials for therapeutic interventions aimed at particular disease manifestations" (Neuropsychology Review, Vol. 19.1 March 2005).

Sorting into sub-groups is essential for accurate research. Jonathan Kerr's paper, mentioned earlier, describes 7 sub-types which he has identified from his genetic studies. These are listed on the next page.

Some of these are exclusively female. One is mainly male. Two groups were the most severe. And so on. **Kerr is distinguishing these groups on clinical grounds**. It can be done, and is being done. Interestingly, types varied with geographical location, with types 4 and 6 being found mainly in Dorset, and type 4 in London, etc. This is fascinating and complex and it tells us that we need to look at patients very closely to assess them.

Jonathan Kerr's sub-types

Identification of 7 sub-types associated with discrete clinical phenotypes

Sub-types 3,5,7 were females only
Sub-type 2 mainly males
Sub-types 1,6 were mixed male and female

Sub-types 1 & 7 were the most severe
Sub-type 7 most pain, swollen glands, sore throats, headaches
Sub-type 1 had worst cognition and mental health score & poor sleep and least pain

Sub-type 4 had moderate neurocognitive function & cognitive defects with moderate levels of bodily pain & sleep.

Sub-type 5 best mental health but poor neurocognitive function, gastrointestinal complaints, most marked muscle weakness & post-exertional malaise

Sub-type 2 marked post-exertional malaise, muscle & joint pain, poor mental health

Types varied with geographical location – Doset 4 & 6, London/NY 4, Bristol 5

Professor Hooper then told us that his view on all this work is summarised in the book already mentioned by Kenny De Meirleir and Patrick Elglebienne: **Chronic Fatigue Syndrome: A**

Biological Approach. What we are looking at is **multiple triggers** to **common pathways** (RNaseL and PKR, as mentioned earlier) which are activated in various ways – this could be of viral or microbial origin (chlamidia, borrelia, and many others) or it could be chemical (heavy metal – at least one of the audience had had mercury fillings removed and this had brought an improvement). These are **multiple biological mechanisms**, many of which have been described in research:

- dysregulation of prostaglandin metabolism
- vasoconstriction and platelet aggregation in the blood vessels
- reduced activity of Natural Killer Cells
- dysregulation of corticotrophin-releasing hormone
- dysregulation of calcium metabolism in all the muscles (including the heart)
- apoptosis
- dysregulation of thyroid hormones

These major features of M.E. were also described by Vance Spence in 2004 (Spence et al, Journal of Clinical Pathology 2004:57:891-3)

Professor Hooper's own definition of the illness is:

"M.E. can be defined as an illness associated with an aberrant immune response that persists and induces a prolonged inflammatory response affecting the central nervous system provoking a range of distressing biological effects."

And to sum up the possible triggers:

INTRACELLULAR MICRO-ORGANISMS

1. VIRUSES - RETROVIRUSES – HERVs, HIV, PICORNAVIRUSES - ENTEROVIRUSES, VACCINIA, etc. –Richardson, Chia
2. CHLAMIDIAE, RICKETTSIAE, BORELLIA, MYCOPLASMAS, TB. – Hyde, Kerr
3. VACCINES- Meningococcal B (Norway), BCG, Hep B others. Kerr, Hyde

CHEMICALS

1. PESTICIDES - OPs, [GWS], Cl5phenol, Kerr et al., De Meirleir
2.HERBICIDES - GLYPHOSATE, GLUFOSINATE - Kerr
3. SOLVENTS - methyl tert-butyl ketone, benzene at ppb! – Vodjani et al
4. HEAVY METALS – Pb, Hg, Zn ((xs), Cr, Cd, Ni, As. De Meirleir et al

Enteroviruses are a strong suspect in many cases of M.E. These cause acute respiratory and gastrointestinal infections, tending to also affect the central nervous system, muscles and heart. Early reports of enteroviral infections causing CFS symptoms were met with scepticism, but recent evidence has confirmed earlier studies and clarified the role of viral RNA (the nuclear material of the enteroviruses) through antiviral treatment.

The next slide gave an idea of the relative incidence of the enteroviruses which have been shown to be involved:

Probable cause	**No. of patients (*n* = 200)**
Enterovirus infection Persistent	**109**
Unknown —	**44**
Chlamydia pneumoniae	**18**
Epstein-Barr	**6**
Cytomegalovirus infection	**3**
Recurrent VZV infection Recurrent lesions;	**6**
Recurrent HHV6-like disease	**1**
Parvovirus B19 infection	**3**
Hepatitis C	**3**

Viral infection has also now been found in the stomachs of people with M.E. (Chia and Chia, Journal of Clinical Pathology 2007 Sep 13, ahead of print)

More on subgroups

Kenny De Meirleir looked at the pathways and found three subgroups:

Group 1: (15 to 20 percent)

- High levels of LMW RNase L and elastase, low levels of protein kinase (PKR) and uric acid, and low to normal levels of nitric oxide. Elevated levels of lymphocytes and proteins in the spinal fluid, increased pressure upon opening the lumbar puncture

- Chronic low-grade viral infection and inflammatory reaction in the brain. Many micro-organisms are associated with this profile. Heavy metals, pesticides, and other triggers may also be involved. ~ 20 percent have low-grade Herpes Virus 6A (HHV6A) encephalitis. [cf Chia]

- Neurocognitive problems – confusion, impaired concentration and memory. Fatigue originates in the brain. Pain is not prominent. Some similarities to (MS).

Group 2: (10 to 15 percent)

- Very high levels of LMW RNase L and elastase, high protein kinase activity, severely low natural killer cell activity, and very low serum uric acid levels.

- Severely ill - bacterial infections originating from animals such as pets, rodents, ticks, etc.

- Severe bowel problems. 70 % of immune cells are in the digestive tract. Leaky gut syndrome, increase in gut permeability - foreign proteins enter the blood and tissues and inflammation results. Tests for 12 pathogenic gut bacteria.

Group 3: (60 to 70 percent)

- Majority of ME/CFS patients in this group. Profile similar to Group 2, but not as severe. Generalized pain originating from dysfunction in the pain processing areas of the brain and CNS is a prominent feature. GI infections with bacteria in the blood.

Diagnostic tests

Five main biomarkers can be used:

- Ask the patient to stand still for 5-10 minutes. This is less expensive than the tilt table!
- MRI showing diffuse vasculitis in the brain (this is Byron Hyde's 'acid test')
- hsCRP – high sensitivity C Reactive Protein, investigated by Vance Spence, is a marker for cardiovascular disease.
- RNaseL, investigated by De Meirleir et al, though this is expensive to carry out
- Blood proteins allied to genetic studies, investigated by Kerr et al

(A team at Sunderland is also looking at markers in the urine)

Treatments available

Within the NHS, Cognitive Behavioural Therapy (CBT) and Graded Exercise Therapy (GET) are top of the list. Other possible treatments are:

- Antiviral treatments
- Other antimicrobial treatments
- Immunomodulation
- Mitochondrial support (Dr Sarah Myhill)
- Essential Fatty Acids
- Other therapies

G.E.T. and C.B.T.

In 1999 Wessely and others published a paper in the Lancet (1999;354:936-9) entitled **Functional Somatic Syndromes: One or Many?** Wessely said that there are many of these syndromes, and that they depend on the medical speciality. He said that there is a whole range of people, essentially with disturbed minds. Because they have got these illnesses we don't understand, "they are all crackers" (Prof Hooper's words!) Wessely's proposed four common features of psychosomatic illnesses:

1. They cannot be explained by conventional paradigms
2. Conventional therapies are ineffective
3. They are more common in women than men
4. They share non-specific symptoms

However, they all respond to graded exercise!!

But **within the psychiatric community, voices have been raised against this**. In fact there is a total lack of scientific support for reclassifying bodily symptoms as mental problems. What is happening is that lack of firm knowledge is being converted into speculative assertions without any critical voices being heard.

This has happened in the past with other illnesses which were not previously understood biochemically: it happened with Parkinsons Disease and Multiple Sclerosis (MS), for instance. MS was previously described as hysteria especially as it was prevalent among women. Professor Hooper said that this is the abuse of women and it is the abuse of patients. He told us how Parkinsons Disease was described in a paper published in 1948 as 'a conflict between a rigid moralistic outlook and a suppressed desire to masturbate'.

These are evasive arguments, with a poor record of research into causes.

Moreover, **industrial interests** are actively influencing the course of what claims to be a scientific discussion – in other words, the economy cannot afford to pay out insurance benefits.

All of the above criticism of somatic medicine were made by Per Dalen, a psychiatrist (see http:art-bin.com/art/dalen_en.html).

Another psychiatrist, N McLaren, in his paper **the myth of the biopsychosocial model**, says:

"This model is based on fraud and ignorance and a complete misunderstanding of the origins of the idea. It is a myth."

"I see psychiatry under attack from all quarters. Some people see a great future for us. I don't share that view. I believe there is a serious risk that psychiatry as we know it will no longer exist in as little as fifteen years. The reason is simply a lack of anything approximating an adequate intellectual framework for our efforts."

[Australian and New Zealand Journal of Psychiatry 2006;40(3),277-278]
(see www.futurepsychiatry.com)

Bruce Carruthers (Journal of Clincal Pathology 2007;60:1170119) also writes against the somatisation theory and the biopsychosocial model. And as long ago as the 17th century, Sydenhal wrote "**In writing the history of a disease, every philosophical hypothesis whatsoever, that has previously occupied the mind of the author, should lie in abeyance. This being done, the clear and natural phenomena of the disease should be noted - and these only. They should be noted accurately, and in all their minuteness."** This has clearly not been the case in writing the history of M.E!

Professor Hooper asked the audience how many of us had had an examination by a clinician that had taken an hour or more. There was no one (except from a private clinic).

All this is very political, in that it is based on the government's aim of getting people back into work – especially people who have got 'disordered beliefs' about their illnesses!

From a textbook in which Wessely wrote a chapter, the following is found about M.E:

- You have had a brief infection, usually viral
- You have a vulnerable, perfectionist personality
- A long history of sickness and absence from work
- Maladaptive beliefs
- A history of fatigue
- Prolonged bed rest
- Chronic invalidism
- Affected children are lazy and inactive

Information about the published statements of Wessely can be found at www.meactionuk.org.uk

Professor Hooper then highlighted the worst paper he has seen recently (Ingvard Wilhelmsen in Psychoneuroendocrinology 2005;30:990-5). Ingvard states:
"The theory is supported by recent research and may result in better handling (!) of patients… (who should be told) do not listen to your own body's signals, do not trust your feelings, do not trust your thoughts"

This is nonsense and makes Professor Hooper very cross, especially as the current NHS clinics for ME/CFS are often weighted towards psychiatric theories and pacing, CBT and GET, with psychiatrists in charge, and often located at mental hospitals. Even, in some cases, behind locked doors.

More Unhelpful Goings On

Dr M Sharpe of the University of Edinburgh said at the Edinburgh International Science Festival in April 2004:

"Groups should be as mixed as possible – no definition"

"we widened the terms of referral in order to ENHANCE RECRUITMENT" Widening the criteria of course confuses the results, since the bigger the mix the more complex the information.

At the same International Science Festival, Dr (now Professor) A Pinching said:

"Our worries about names, causation, mechanisms which OK are FUN (!)….can be understood by others as a reason for inaction….over investigation can be harmful…..causing them to seek abnormal test results to validate their illness"

And also

"over-investigation can be harmful and counter-productive to the management of these patients, causing them to seek abnormal test results to validate their illness" (*but we know that **routine** tests are normal*)

"patients avoid activity but then develop symptoms of deconditioning or excessive awareness of physiological changes" (*but we know that it is **not deconditioning***)

All this is misleading the public and in fact these are lies. Unfortunately the Wessely School of ME has many adherents that include these major personnel who all follow the same paradigm based on somatisation and the biopsychosocial model.

Helpful Developments

Anti-viral treatments

Professor Hooper mentioned some of the treatments which some people with M.E. have found helpful:

- POOLED Human IgG (IM,IV)- ADOLESCENTS (RICHARDSON et al, Ben Nathan). This was widely used by John Richardson long before anything else was available. It is still helpful in many cases.
- ANTIVIRALS -VALGANCYCLOVIR (HERPES FAMILY) (available in the UK but not yet researched here. See below)
- PLECONARIL - picornaviruses, enteroviruses, rhinoviruses etc
- INTERFERONS (Kerr),

- AMPLIGEN etc (De Meirleir)
- LAURICIDIN (a supplement from a substance in coconut oil)
- OLIVE LEAF EXTRACT (easily available herbal remedy though none in this particular audience had tried it and found it helpful)

Very recently, **Montoya** et al in the United States researched **Valganciclovir** in a group of 12 patients and found that 9 of them returned to 90% levels of functionality, having had a course of treatment. Not everyone responded. Valganciclovir is a drug which is active only against the herpes family of viruses. It also has toxic side-effects which need to be carefully guarded against especially as it is often used in patients who are immuno-suppressed, which would enhance those toxic effects.

Other organisms which may be involved:

Some of these are: chlamidia, chlamydophila (from pet birds) rickettsia (often from the meat industry), borrelia, mycoplasma (which was involved with the Gulf War story)

All these infections can be treated with doses of powerful broad spectrum antibiotics in repeat cycles; this is an intra-cellular parasite which has to be got out from inside the cell and destroyed when it emerges. The treatment puts a lot of strain on the gut and so the gut needs to be supported by probiotics and prebiotics.

Some members of the audience said they took probiotics, and Professor Hooper told them they were doing the right thing. Vitamins and mineral supplements are also needed, along with gut enzymes and sometimes glutamine. These are all supportive of the gut. (All this is found in Nicholson CFIDS Chronicle September/October 1999.)

Mitochondrial Malfunction

Professor Hooper then pointed to a paper (which underpins the current work of **Dr Sarah Myhill**) by Peckerman et al (Am J Med Sci 2003;326:55-60) – **Abnormal Impedance Cardiography Predicts Symptom Severity in Chronic Fatigue Syndrome**. Sarah Myhill referred to this paper and began to recognize M.E. as secondary heart failure due to mitochondrial malfunction. Mitochondria are the 'energy batteries' in body cells. "If they don't work properly, you don't work properly. " The heart, muscle, and the brain have most mitochondria. **The Sinatra Solution – Metabolic Cardiology** by Stephen T Sinatra is the book which describes this.

Dr Myhill reports that some studies have found that some supplements are helpful in cases of mitochondrial failure, and these are NADH, Succinate and Coenzyme Q 10 (all co-enzymes). Some members of the audience had found these helpful. Dr Myhill actually recommends a comprehensive programme to support mitochondrial functions, including daily inputs of N-acetlycarnitine and co-enzymes, Co-Q10, niacin (B3), with D-Ribose, Magnesium, and multi-minerals and vitamins.
(see http://www.drmyhill.co.uk/article.cfm?id=381)
Many of Dr Myhill's patients are finding this protocol very helpful.

Sobering Statistics

However, we were reminded that confusion and deception around case definitions has compromised many different areas of life for people with M.E, including

- patient care and understanding
- carers and their needs
- support systems including benefits and insurance
- clinical treatment and research studies

The **25% ME Group** (a charity set up to support those most severely affected – see see www.25megroup.org) recently carried out some research on their members which showed that only 38% of benefits agencies, 27% of social services, 20% of PCTs and 13% of NHS hospitals had appeared to accept M.E. as a long term serious illness. 61% felt that they had an inadequate care package, and reported reasons for this included 18% who felt that M.E. was not a priority in their authority. Several members in fact had received an adequate care package only after a High Court judgement! The 25% Group study highlighted many other stark inadequacies that had been found in statutory support systems, including the fact that 53% of the most severely affected (i.e. usually bedbound) had never received a home visit from their GP.

The same study found that what most people (more than 50%) said had helped them was pain management, symptomatic care management, pacing, alternative therapies, and counseling (only 54% for counselling). What had NOT helped them (more than 50% of them) was GET, CBT, and psychotherapy. So the question must be asked, why has £8.2 million been spent on clinics offering ONLY those treatments?

Crucially, it seems that the **DWP** has also largely adopted the biopsychosocial model of M.E. A sign of the times is that in Sweden a model has developed whereby patients are allotted certain periods of time off work for certain illnesses; for M.E., the time allowed off work is 2 weeks.

Professor Hooper then gave another example of the deception. Dr Tony Wells (consultant clinical psychologist) of the **South of Tyne CFS Service** (service planning process, 28 June 2006) stated that “the service would operate from and be based on the biopsychosocial framework”. This was vigorously opposed by the patient groups involved, but carried through at the final meeting. This, then, is the imposition of a pre-planned service which has not listened to the voices of those most involved.

Government Involvement

The NICE Clinical Guideline

The National Institute for Health and Clinical Excellence (NICE), established in 1999, is set up to provide operational guidelines in the NHS. The national guidelines for ME/CFS were published earlier this year.

Professor Hooper mentioned the 2007 Conference of ME Research UK (reviewed in our previous newsletter - DVD available in our library) and quoted Dr Ellie Stein, a Canadian psychiatrist, who had identified **many flaws** in the 7 'random controlled trials' which the NICE guidelines development group had relied on. 2 trials had used wrong criteria (Oxford rather than Fukuda), 2 had produced negative results, and none had produced actual benefits. They measured only subjective responses, with NO objective measurements. Dr Stein said "*I would never in my practice use the Wessely model of cognitive therapy – I find it disrespectful to try to convince somebody they don't have an illness that they clearly have".*

In this story it is impossible to separate the politics from the medicine and science.

The Gibson Enquiry - background

The other major political event touching M.E. in the past year has been the publication of the **Gibson Report** (see our newsletter of Spring 2007). Professor Hooper pointed to a briefing paper which he had produced for the Countess of Mar in December 2003 for the House of Lords debate on 22 January 2004. The paper's title is **Mental Health Movement: Persecution of Patients**. In the actual debate, it was claimed that it was acceptable for ME/CFS to be placed in two different classifications, both in ICD-10 NEUROLOGY , G.93.3 and MENTAL AND BEHAVIOURAL, F.48.0.

But when consulted on this, the World Health Organisation stated categorically that this was not allowable. Accordingly the then Parliamentary Under Secretary of State for Health wrote to the Countess of Mar on 11 February 2004:

"The UK accepts ICD-10, and therefore after it was pointed out that the relatively new term Chronic Fatigue Syndrome (14 yrs on!) has been indexed to the neurology chapter, corresponding adjustments were made to the web version of the first edition of the guidelines, and an erratum note has been placed on the Royal Society of Medicine website."

He stated that **"**the second edition of the guide to mental health and neurology in primary care will have only one icd-10 code for CFS" - this is **G93.3.**

However **this has not yet been done.**

The Gibson Enquiry

The Gibson Report recommendations are:

1. Increase Public Understanding of Scientific Research into ME/CFS. Substantial research funds, matching the £11 million now provided for the current psychiatric/psychological programmes of treatment and research, are needed and should be provided.
2. Evaluate progress in the Development of a full programme of research into ME/CFS. The Report placed very strong emphasis on the Canadian criteria and on **medical** education. Identify Research and Funding Requirements in Establishing the Cause(s) of ME/CFS.

The Gibson panel has subsequently stated that the NICE guidelines are inadequate, having failed to respond appropriately to the Chief Medical Officer's report of 2002. They also recommended that any interested parties, such as people linked with insurance companies, should be removed from any advisory capacity.

More on the NICE Guidelines

National Guidelines were an outcome of the 2002 Chief Medical Officer's Report on ME/CFS, with the Guidelines Development Group (GDG) being initiated in 2004. Their draft for consultation was published in September 2006, with the final version of the official Guideline on ME/CFS being published in August 2007.

The draft of 2006 brought many criticisms from individuals and organizations, with its many flaws being pointed out and alternative proposals being offered. The submission of Dr Derek Pheby, an experienced clinician in M.E, Project Coordinator of the National ME Observatory and Senior Fellow at the University of Hull, is just one of those which were ignored. When he enquired why his submission was not referenced in the summary of submissions, he received the reply that 'inflammatory and derogatory' submissions could not be included. (He later received an apology because it seems that his submission had been confused with others!).

The draft Guideline was flawed because it recommends CBT and GET as highly effective, despite lack of evidence (see Dr Ellie Stein's comments mentioned earlier). **The guidelines says that these are the best treatments that have been identified. This is not the case**. A member of the Association of British Neurologists has commented on the *draft* Guidelines:

"**The draft guideline** is fundamentally flawed because it presupposes certain interventions (CBT/GET) to be highly effective in CFS/ME for routine clinical use despite lack of adequate evidence……it almost seems that a select group of psychiatrists with a polarised view of this complex condition is directing the development of the guideline from 'behind the scene'….tactically promoting Oxford criteria over the more widely used CDC criteria (Canadian Guidelines) .. clear evidence of psychiatirist influence on this group. "

The published Guideline shows some changes in tone, but many concerns still remain, mainly that **the biomedical features of the illness, as described in some 4,000 published peer-reviewed papers, have been totally ignored**. The document still has reference to 'unhelpful beliefs', and 'the relationship between thoughts, feelings, behaviours and symptoms and the distinction between causal and perpetuating factors'.

CBT/GET are still recommended as proven and effective treatment despite attention being drawn to the seriously flawed data on which these are recommended. In fact Professor David Richards in the British Association for Behavioural and Cognitive Psychotherapies Magazine of March 2007 has said: "Most CBT trials are poorly executed; quality thresholds for RCTs in NICE guidelines are notoriously low, allowing the results of meta-analyses of small poor quality studies to direct policy" One organisation is even preparing the ground for a judicial review of the NICE guidelines on ME/CFS.

Professor Hooper's last reference was to something said by Anton Komaroff, of the Harvard Medical School, at the CDC Press Conference in 2006:

"….there are now over 4,000 published studies that show underlying biomedical abnormalities in patients with ME-CFS. It is not an illness that people can simply imagine that they have and it's not a psychological illness. In my view, that debate, which has waged for 20 years, should now be over."

And his final message was that **if we use all this information and combine our efforts, this debate will soon be over in the UK and elsewhere –patients will be respected, carers supported, focussed research funded, and effective clinical care and treatment provided.**

Questions and Answers

Before questions were taken, Professor Hooper read out an email which had just been given him by a member of the audience. This concerned Dr Sarah Myhill who had recently been the object of disciplinary actions by the British Medical Association. Dr Myhill had received huge support from patient groups and has~~d~~ now received the news that the General Medical Council was dropping all allegations against her. This good news received a round of applause from the audience. Professor Hooper said that he hoped that Dr Myhill will now be allowed to treat patients as she sees fit; she is one of the few doctors who make a clinical diagnosis and treats patients clinically, for instance addressing thyroid and nutritional aspects - it takes a brave physician to do this and to stand up to the GMC. The good news set the second half of the afternoon off to a very positive start, reminding us that 'there are good clinicians around'. Professor Hooper knows Sarah Myhill personally and confirms that she is a good clinician.

You have described many clinical tests and procedures which could positively identify M.E. How do we get those tests?

"IF (this is a big if) your clinicians are willing to look at evidence, you can go armed with the evidence. The evidence is that some very simple tests can be done by a clinician. The some of the tests that Julia Newton carried out in Newcastle are very simple tests. Vance Spence has found another simple test, the C reactive protein test (a marker for cardiovascular disease) which in a slightly more sophisticated form, the hsCRP test, correlated with the degree of symptom severity in people with M.E. It is a relatively simple test, not too expensive, and moves outside the bog standard blood tests that don't tell you anything except that you are normal.

"The other one is standing in the corner for 10 minutes. I had a friend who was a Gulf War Veteran and was told to stand up for 10 minutes. He said he couldn't do that because he would fall over. He was told he would be protected if this happened, only to find himself soon after in hospital having an X-Ray for a possible fractured skull. So, go with a friend who will catch you.

"Another is to take heart rate measure sitting down, standing up, etc, and that can be very helpful. A good nurse can do that as well as a doctor. This would be a test for dysautonomia,

this being a feature of your illness. Not all of you will fall under that category, but 75% of you will, as indicated by Julia Newton's findings. This is covered by the Canadian Guidelines.

"Another is to take the Canadian Guidelines along. 10,000 copies of this have already been sent out but we have no idea what became of them. My own GP doesn't believe in M.E. or Gulf War Syndrome. There are some good doctors around though. Jean Munroe at the Breakspear Hospital (a private hospital) is very good and has some other good people working with her.

"There is a group looked after by Dr Irving Spurr who took over Dr John Richardson's patients who is giving immunoglobulins every 3 weeks. These were widely used to protect against HepA before we got a vaccine. It is still widely available in the UK, mostly being given intra-muscularly. That's another treatment that could help. Irving Spurr does that and could be contacted by a doctor. So there are lots of things like this going on, but they are going on very gently under the surface because if you put your head above the parapet you get clobbered, like Sarah Myhill."

Now that the field of genetics is being researched, is there a possible connection between M.E. and other illnesses such as MS and Parkinsons which seem to run in families?

Professor Hooper said that there is a lot of work being done in this field and the techniques to be able to do it have only just been developed. Jonathan Kerr is very active in this. A lot depends on the structure of the research. What is being looked at in the micro arrays is what genes are changing in the study group compared with the normal group, and how the genes are upregulated. They have an arbitrary cut-off point of 3 and if there is a 3-fold increase in the gene presence this is said to be an upregulation.

This involves 47,000 genes and it is in formulating the question that the skill of the researcher comes in. All kinds of research tools have to be used and this is how Jonathan Kerr found his sub-groups. Similar work is going on in Parkinsons research also and there is a lot of work going on the field of autism. The answer to the question briefly is yes.

What about chemical sensitivity in people with M.E.?

Chemical sensitivity plays a big role in M.E. Most people with M.E. suffer from chemical sensitivity. It may not be as comprehensive as for some people who come with a primary MCS. There will soon be an article in the Telegraph about MCS, and Professor Hooper had just been briefing the writer.

MCS is a genuine illness which has all the characteristics of a multi-system multi-organ illness and often appears to be associated with one massive exposure, or with low-grade exposures. If you look at it as a chemist you would question how these different chemical structures could possibly cause all this similar kind of damage. Some people react to pesticides, some to herbicides, some to perfumes. But work has been done on all of these aspects, showing that they do provoke the same type of symptoms.

MCS is very common in Gulf War Syndrome and in people with M.E. It is a matter of saying is this something I can live with, or is it something I can avoid, or escape from. MCS is a very

big player worldwide. The Germans and the Americans recognise it, but not in this country. Professor Hooper is currently involved with a very severe case of a lady in the south of England who has had to go and live virtually in a forest, in very ramshackle and inadequate accommodation. The authorities want to throw her out and put her in a place which is next to an airport. They just don't believe her.

It is one of those things that you have to learn to live with to a degree. There are desensitisation techniques that can be used and at the Breakspear Hospital they are used very extensively. Sarah Myhill is the secretary of the British Society for Ecological Medicine. On their website http://www.ecomed.org.uk are listed their members around the country who will do these techniques, but getting funding for these treatments would be doubtful. But these desensitization techniques do help, with chemical substances and with biological things like pollen.

Can you say something about the work of Martin Pall?

Prof. Martin Pall looked at these immune inflammatory pathways and identified nitric oxide which is a major mediator in these pathways and which figures in all the work that has been done, such as Vance Spence's work. Pall sees this as a linking factor. And in the Kenny De Meirleir work, nitric oxide is a major player in one part of his pathways. He is saying that Martin Pall is right about one little bit, and he is trying to find a much bigger picture. So that's the link with nitric oxide.

Can you say something about the recent publication *Corporate Collusion* and the fact that the Medical Research Council is said to keep a secret file on M.E? (this document is available in our library and from http://www.meactionuk.org.uk/Corporate_Collusion_2.htm)

Professor Hooper said that indeed the MRC has a secret file on M.E, there is no doubt about that. It is being prescribed and restricted for 30 years. It is a file on the proceedings of the Chief Medical Officer's Report that was meant to be the basis of the move towards something more effective for M.E. The people who were part of the CMO's working group had to sign the Official Secrets Act. ("What on earth is going on in the world of M.E. that is going to breach the Official Secrets Act!")

Professor Hooper told us that he had thought about this for some time and this is his take on it. One of the things that has begun to loom large in the world of M.E. is Lyme Disease and Borrelia infection. Borrelia is not common in the UK. It is normally associated with deer ticks. You can get it from other animal ticks and you can get other strains of the organism from mosquitos, it is not restricted to ticks. "Lyme disease is one strain of Borrelia. That was investigated in the United States as a biological weapon. If you can lay out a whole population with something that reduces their energy and lays them out flat, then you can control them. That is my take on it. I think that it could easily be related to something to do with biological weapon development, because I believe some of this was released in the States. If all that came out it would be awful. I know that this is a 'conspiracy theory'. But there is a big one on the front page of the Daily Mail today about Dr Kelly who was assassinated and was not a suicide, which I think is probably right. Norman Baker has picked it up, and he is a good guy, so I think that some conspiracy theories might very well have a germ of truth."

He told us that he would like to see the secret MRC files opened up, and there has been a suggestion that they could be opened up. We are into high politics now and we want a politician who is prepared to put his head on the block. One guy is Ian Gibson. He put his head on the block for M.E. and got it firmly thumped. You have got to go politically, there is no other way round it. And you have also got to go with investigative journalism to open things up.

"There are a lot of things happening in our society and I am finding this now. I am involved with GWS and MCS, organophosphate poisoning, M.E. and Fibromyalgia and all I'm finding, wherever I go, is that there is a profound corruption in the system. The system is corrupt. Not just in a way that's back-handed, although that does play a part, but it is a corruption of the spirit that people have practiced so long in disregarding the truth that they are now unable to recognize truth. That is what I find very worrying. I have raised this with one or two people that I know in high places (who admit to knowing me!). That is my concern and my political affiliations are still defined by my birthplace and background in South Yorkshire and I must say I have been deeply disappointed with some of the things that have happened recently politically. I just can't say how distressing I find it.

"So that's my take on the secret files. It may be something quite innocent, but if it is, why get it locked up. That's the question. We do need to get this prised open. We could possibly do it. Legal procedures can get these things opened up. I am not a lawyer."

Can you say something about Professor Wessely?

"I know Professor Wessely and I've met him on several occasions. He doesn't like me. I am sorry that for may people this has become very personalised. If Wessely came and talked to you, you would think 'what a nice chap'. But there is no doubt that the group of psychiatrists that have gathered round his ideas (Michael Sharpe in Edinburgh, Peter White at Barts, and to a certain extent there is Anthony Cleare). All these people are calling the shots. They are in the pockets of the insurance agencies like Unum Provident and they are reducing the costs to those institutions. This is something that was identified long ago (1999 / 2000) and that is in our little booklet called **What is ME/What is CFS**. You are expensive people to look after (people with M.E.) and Wessely is singing the right tune.

"**BUT credit to NICE for the fact that Wessely's abhorrent ideas about CBT have been essentially if not rejected, very strongly attenuated by NICE. You are no longer, now, obliged to accept treatment that you don't want, and the physician is no longer allowed to abandon you if you are not doing what he says**. So that is one of the good things that has come out of NICE.

The bad thing that's come out of NICE of course is that they still go with CBT and Graded Exercise and have not looked at the evidence. Their evidence base is very poor and that evidence base is controlled by Wessely because NICE has relied on the York reviews which are compiled by people who are not clinicians but are advised by clinicians. And who is the adviser? Simon Wessely. Also Michael Sharpe. So the thing is circular. This is what comes out in this report **Corporate Collusion**. I am not the principal author of that but I am happy for my name to be on there. The principal author is Margaret Williams, and she is a lady who is very sick with M.E. She crashes in between working. I am really impressed by the people who are ill. I think you should all have VCs."

On benefits, insurance, and officialdom:

"NICE have had all this information. Not just from me – I regard myself as very small beer in all this. People like Vance Spence and Jonathan Kerr are doing the primary work. That is the experimental data that will say that the NICE is wrong. All I am trying to do as a practicing scientist who is still practicing despite his retirement is to try and put the picture together so that people will understand what is happening. I wrote a huge report with Horace Reid to NICE, and they've ignored it because Horace Reid is not a scientist but an M.E. sufferer, and I am not a clinician I am a scientist. But I don't mind how people react to me, provided I am convinced that I am telling the truth. If people can show me where I'm wrong, I'm happy to be corrected. So the evidence has been given to these people. It's been given in the Gibson Enquiry, and in submissions to NICE."

On where we go from here:

"A very good friend of mine in the Gulf War Veterans campaign quoted to me "Our strength is the strength of ten because our hearts are pure". So I am trying to keep a pure heart. That's why I'm not going to make personal criticism of Wessely. I separate the ideas from the man. I think it's very important that we persist in what we are saying and that we come together to say it.

"One of the big problems of M.E. groups (and GWV groups) is that they disagree with each other. Some groups are very much against Action for ME because AfME says there is a place for CBT and Graded Exercise. AfME claims to be speaking for the M.E. community but they haven't had a proper meeting since 1996 and so the membership is disenfranchised.

"So we just have to keep plugging away and we've got to keep persisting in telling the truth, and putting it in front of people and telling them that this is the truth. Are you prepared to look at this and spend time with me, or are you just going to dismiss me. We just have to keep plugging away. The publications I put out go all over the place. I don't follow where it goes and I don't follow my name on the internet. You just have to keep putting it out and saying it over and over again and keeping things up to date.

"And someone like Jonathan Kerr sticks his neck on the block. He is a medic and he could have his head chopped off and his funding stopped. They won't fund his research on Gulf War Veterans. It is the people who advise the ministers, whom we can't see, who are responsible and the minister cannot recognize the validity of what he is being told. If people are given the wrong information, they manage things the wrong way.

"So you have just got to keep saying, we are part of the universal, national M.E. community, and we are in this area, and we are saying that these things are wrong, you are being disrespectful to us, and you are abandoning us. We are asking for respect, we are asking for fair treatment, and we are asking you to look at the evidence.

"**To be fair to NICE, although the thing was manipulated by people behind the scenes whom the people on the Guidelines Development Group wouldn't necessarily see, they have actually said that the disrespect towards patients must stop. Patients should be treated respectfully, no patient should be compelled to undertake any treatment. And**

the doctor could not abandon the patient because s/he doesn't like him or her. That is not a legitimate or a legal response.

"The other thing to keep saying is, 'I have a neurological condition. Please read ICD-10 G93.3. I am suffering from a neurological condition. Please may I be referred to a neurologist. Could I be referred to a neurologist or doctor at the Breakspear like Dr Jean Munroe '."

On the differences in where we get referred

"You should really be seeing an immunologist or a neurologist. I could have talked earlier about the neuro-endocrine-immune paradigm. This simply shows that the nervous system, the endocrine system and the immune system are all interlinked. If you get an immune assault, it has a knock-on in the nervous system and vice versa. This is also relevant to the Gulf War veterans." (Several of the audience felt that their M.E. resulted from a chemical exposure rather than a viral exposure.) "It seems from clinicians I talk to that the proportion is roughly in the order of 10-15%. A significant but small proportion. This was recognized by Kenny De Meirleir.

"In Norway the Health Minister went to a meeting of M.E. patients. It turned out that a large proportion of people were ill because they had been given the vaccine for Meningococcal B which was manufactured in Norway. The minister set up an enquiry and from the results of that a decision was made that this was a real illness and that the rules had to be changed so that people with M.E. could get proper help. So, Norway has changed the thing right round. And this was because of only a handful of people."

If you had a pot of money for M.E. research, how would you allocate it?

"Julia Newton is an MRC funded researcher. She is getting substantial funding. PBC was what she was working on, but she had the wit to say what about fatigue illnesses generally? So Vance got to know about her work and went to see her. I went to see her with Irving Spurr from the John Richardson group and in that way she got some funding from MERGE, now ME Research UK. That is the premier research organisation. Jonathan Kerr was funded by Research In M.E. RiME, and he is also MRC funded. So we have got people in the system now who are actually working, and doing very good work, which is uncovering all the stories I've been telling you. So I think we will get a hearing, as their work becomes recognised. I think there is real hope in that direction.

"Certainly I'd go to Vance Spence, because he has funded all his own work through the M.E. community. Secondly I would go to Jonathan Kerr. Thirdly I would go to Julia Newton to unpack this dysautonomia in M.E. patients.

"Then I would want to go towards the emerging people, like the group associated with Vance who are looking at muscle pathology. There is another group looking at free radicals. The Gibson Enquiry concluded that we should put the same amount of money into research into biomedical causes as has gone into the clinics for CBT etc. and I think this is right. I think we could spend £11 million very easily. Another one is Basant Puri, another top class researcher who is MRC funded. And I am sure there are other good researchers in this area. Vance started out with funding of 25,000 from the M.E. community and has now got a research

project of a quarter of a million which is still not anything like enough. The government could easily fund the work tomorrow but for M.E. and GWS the funding is not yet coming through."

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Time had now run out and Professor Hooper was warmly thanked by the Chair. All present felt inspired by Professor Hooper's talk and his responses to comments and questions. It was very good to hear that excellent research really is being done, and especially to hear it from one who is personally involved and who could bring the picture to life for us so well. We all went away in a hopeful frame of mind.