What the Experts say about ME/CFS

Margaret Williams 28th March 2006

(It may not be too late to bring the experts' views recorded below to the attention of members of the Gibson Parliamentary Inquiry, a vital step if the scandal of ME/CFS in the UK is to be halted)

The "Invest in ME" Newsletter of 27th March 2006 (to which acknowledgement is made) reported on the Presentation given on 18th February 2006 at Denmead, Hampshire, by Dr Vance Spence, Chairman of the UK ME research charity MERGE. Quotations from that Newsletter include the following:

"One important role of MERGE is to bring the possibility of researching ME/CFS to the attention of scientific researchers, no easy task for an illness that is so often wrongly referred to as 'psychosocial' ".

"There are two main ways that biomedical research gets funded: government and charities. While there are many general medical charities such as the Wellcome Foundation and the Nuffield Foundation, none has funded biomedical research (into ME/CFS)".

"The MRC has £400 million per annum (and) the psychological lobby has received an awful lot of funding from the government. Psychological research has a role in human health but it is not going to help patients with severe neurological ME".

"Biological research into ME/CFS is ignored by the medical publications".

"In the UK, there are five times more people with ME than with HIV AIDS, for which the government provided ring-fenced money for research, but they have provided nothing for ME biomedical research".

In March 2006 the CFIDS Association of America produced a special 65 page issue of its Chronicle (The Science and Research of CFS), which refers to “the quiet devastation” and “ravages” of (ME)CFS. Contributors include respected researchers and clinicians from across the world with expertise in ME/CFS.

Few busy doctors or Members of Parliament, however kindly disposed towards those with ME/CFS, will have time to read this important document for themselves, so here are some illustrations:

From “The State of (ME)CFS Research” by Professor Nancy Klimas from the University of Miami Medical School

“Over the past 18 years, the field has grown in both the number of researchers and disciplines represented (but) each research finding seems to raise more questions than it answers. (ME)CFS is a complex multi-system illness that has eluded easy answers. Unfortunately we still don’t have a lab test or other diagnostic tool for (ME)CFS. The resulting lack of credibility accorded to (ME)CFS has been a significant barrier to research and understanding”.

“We need more research to understand the various subgroups of CFS and to discover treatments that address the true biologic underpinnings of this illness. We need to educate health care professionals about this illness and keep at it until every doctor (and) nurse can quote the diagnostic criteria”.

“We know that (ME)CFS has identifiable biologic underpinnings because we now have research documenting a number of underlying pathophysiologic processes involving the brain, the immune system, theneuroendocrine system and the autonomic nervous system”.

From “Across the Pond” by Brigitta Evengard from The Karolinska Institute, Stockholm, Sweden

“Researchers in centres across the world are investigating everything from cause to cure. (ME)CFS is a disease that affects people in every corner of the world”.

Despite recent ill-informed assertions from those who support the psychiatric lobby that the disorder is unknown outside the "cultural" beliefs held in the developed countries of Europe, the Special Issue documents a small sample of research centres in countries that include Australia, Belgium, Canada, China, Denmark, Germany, Iceland, India, Japan, Korea, The Netherlands, Sweden, Spain and the UK.

From "The Link between Advocacy and Research" by Thomas F Sheridan

"The Centres for Disease Control's current Director, Dr Julie Gerberding, has continued to give (ME)CFS personal attention. In June 2004 she stated: '(ME)CFS is an important and disabling condition and we must do more to help the public and health care providers understand its devastating impact' ".

The Epidemiology section by Professor Leonard Jason et al provides international prevalence estimates: some examples include Japan (1,500 cases per 100,000); Hong Kong (3,000 cases per 100,000); Australia (1,500 cases per 100,000); New Zealand (127 cases per 100,000); Brazil (2,000 cases per 100,000); Netherlands (112 cases per 100,000) and Italy (9,500 cases per 100,000). The UK figures vary so widely that they are of little value, varying from 130 cases per 100,000 to 2,600 cases per 100,000, the latter figure coming from Wessely et al in 1997. According to the CDC, as many as 900,000 Americans have (ME)CFS.

(To put this in a UK perspective: 130 cases per 100,000 equates to 78,000 people out of the UK population of 60 million and 2,600 cases per 100,000 equates to 1,560,000 out of the UK population of 60 million; by comparison, 83,000 people out of the UK population of 60 million suffer from multiple sclerosis, which is 139 cases per 100,000).

Jason states: "(ME)CFS is characterised by a pattern of relapse and remission over long periods of time, making it even more difficult to assess recovery rates. Full recovery from (ME)CFS appears to be rare in adults, with an average of only 5% - 10%".

From "What causes (ME)CFS?" by Professor Anthony Komaroff from Harvard Medical School

"The biggest change in our understanding of (ME)CFS over the past 20 years is the abundant evidence that there are measurable abnormalities in the body in patients with (ME)CFS. I conclude that the controversy as to whether (ME)CFS is real should be over".

"Most studies using MRI of the brain in (ME)CFS have found small scattered areas of signal abnormality in the brain's white matter (and) these abnormal findings most likely are active areas of inflammation and possibly demyelination. SPECT, PET and fMRI also have generally found abnormalities".

"Most studies of cognition have found abnormalities in patients with (ME)CFS. Many studies have found abnormalities of the autonomic nervous system. A paper published in 2005 found a characteristic 'fingerprint' of specific molecules in the spinal fluid of patients with (ME)CFS. Spinal fluid, much more than blood, reflects what's going on in the brain".

"The abnormalities of the immune system are consistent with an assault against some foreign invader".

"The symptoms of (ME)CFS are experienced in the brain and I suspect most of them are caused by abnormalities in the brain, but what causes these abnormalities? Clear possibilities from the literature include (i) effects of a state of chronic immune activation on the function of the brain cells (ii) a chronic infection of the brain by micro-organisms (iii) physical injury to the brain. A chronically activated immune system as reflected by various blood tests could reflect one of two possibilities or both: the presence of a micro-organism such as a virus (or) a defect in the immune system that causes it to become unnecessarily activated".

From "Fast Facts: Top Ten Discoveries about the Biology of (ME)CFS"

1. (ME)CFS is not a form of depression and many patients with (ME)CFS have no diagnosable psychiatric disorder
2. There is a state of chronic, low-grade immune activation in (ME)CFS
3. There is substantial evidence of poorly functioning NK cells

4. Abnormalities in the white matter of the brain have been found

5. Abnormalities in brain metabolism have been discovered

6. (ME)CFS patients have abnormalities in multiple neuroendocrine systems in the brain

7. Cognitive impairment is common in (ME)CFS patients

8. Abnormalities of the autonomic nervous system have been found, including a failure of the body to maintain blood pressure, abnormal responses of the heart rate and unusual pooling of the blood in the veins of the legs. Some studies also find low levels of blood volume.

9. (ME)CFS patients have disordered expression of genes that are important in energy metabolism

10. There is evidence of active infection with various herpesviruses and enteroviruses in (ME)CFS patients. Other infections can also trigger (ME)CFS, including the bacterium that causes Lyme disease.

From "It's all in the genes" by Dr Jonathan Kerr from St George's University of London

"Within the last three years, researchers have reported various gene signatures in the blood of (ME)CFS patients. We now have data comparing gene signatures of sudden versus gradual onset and also of resting status versus post-exercise status. Certain themes of gene activity are emerging, of which 'immunity and defence' is the most prominent, supporting previous findings on the role of the immune system in the maintenance of this disease. The 2003 study of Powell et al found that 4 of 12 PCR-confirmed, (ME)CFS associated transcripts could not be matched to known genes. In the near future, we can expect a diagnostic test for (ME)CFS, an understanding of the mechanisms of the disease, and treatments that will work in this tragic and all-too-common illness".

From "Immune System Gone Haywire?" by Susan Levine from New York City

"Six prominent findings from the past 18 years of research:

1. impaired function of natural killer cells

2. increased numbers of destructive T cells and increased percentage of T cells expressing activation markers

3. activation of several pro-inflammatory cytokines
4. dysregulation of the 2-5A RNase L antiviral pathway
5. predominance of Th-2 cellular immunity
6. differential expression of gene markers whose products cause T cell activation".

"In (ME)CFS there is a shift towards Th-2 predominance (and) there is also frequent reactivation of latent viruses, another sign of dysfunction of humoral immunity".

"One of the most exciting has been (the) report of aberrant cytotoxic activity among (ME)CFS subjects who demonstrate a differential expression of at least 35 gene sequences compared to matched normal controls. The identity of the protein products of these genes suggests a link to organophosphate exposure".

From "On the Frontier: Some Infections Trigger (ME)CFS in 10% of Cases" by Dr Andrew Lloyd from the University of New South Wales, Sydney, Australia

"Both the UK and Australian studies have shown that the development of (ME)CFS is independent of psychiatric disorder, and that severity of the acute illness is a key predictor of the subsequent development of (ME)CFS".

From "Is (ME)CFS a Brain Disorder?" by Dr Gudrun Lange from New Jersey Medical School

"Most researchers now acknowledge that the central nervous system – the brain and spinal cord – somehow plays a role in (ME)CFS".

"Neuroimaging study results: Investigators have used brain imaging technology to examine whether people with (ME)CFS have structural and / or functional abnormalities. Both have been found. Three studies found evidence of cerebral atrophy. This means the brain has decreased in size, possibly due to the death of brain tissue. Our group found indirect evidence for white matter loss, and two studies reported a significant reduction in cerebral gray matter. Numerous dynamic imaging studies have now shown reduced cerebral blood flow, called hypoperfusion, in

(ME)CFS patients. Reduced cerebral blood flow has been found globally as well as in the lateral frontal, lateral temporal and medial temporal lobes. The research suggests that (ME)CFS patients suffer widespread cerebral hypoperfusion".

"A 2005 study found that 30% of (ME)CFS patients had higher protein levels and / or white blood cell counts in spinal fluid than normal, suggesting that this subset of patients may suffer from central nervous system immune dysfunction".

From "Aspects of the Illness: Alphabet Soup" by Dr Dedra Buchwald from the University of Washington

"Every patient with (ME)CFS knows about overlapping conditions. FM. IBS. MCS. TMD (which) makes diagnosis and management harder for physicians. It also complicates life for patients, who must deal with scepticism from the physicians, family members and friends who find it hard to believe that someone with so many ailments isn't a hypochondriac, depressed, or eager to assume the sick role to get attention".

"In fact, research suggests that it may be rare for an (ME)CFS patient not to have concurrent symptoms of other illnesses, and some patients receive formal diagnoses for multiple conditions".

"This doesn't mean that these are all the same illness masquerading under different names".

"Irritable bowel syndrome occurs in 58-92% of (ME)CFS patients".

With regard to multiple chemical sensitivity, 53-67% of (ME)CFS patients report a worsening of their illness with exposure to various chemicals and 55% of FM patients experience symptoms consistent with MCS".

"Attributing unexplained clinical conditions solely to psychological distress or psychiatric explanations is no longer widely accepted".

"It seems highly probable that overlap among unexplained clinical conditions is due, in part, to the complex interplay between genes and the environment".

"As a final caveat, describing an illness an unexplained should not be taken to mean unexplainable or imaginary".

From "Clinical Care for (ME)CFS" by Marcia Harmon from the CFIDS Association of America

"The fact that very few physicians specialise in the care of (ME)CFS patients and can contribute to the body of knowledge on clinical care has slowed progress. Coupled with (this) is the growing recognition that there are subsets of (ME)CFS patients, and what works for one set of patients may be of little benefit to another group".

"Because (ME)CFS is such a complex multi-system illness, clinicians agree that integrative care is a desirable model. Achieving that ideal is problematic, because there are so few specialists who know enough about (ME)CFS to contribute to the team".

"A physical therapist who doesn't understand (ME)CFS is worse than none at all".

"(Dr David) Bell (paediatric ME/CFS specialist from New York) says 'referring patients to someone who doesn't understand (ME)CFS is frequently a disaster".

"(Dr Dan) Peterson also has difficulty finding knowledgeable specialists, believing this is just one more reason that the Centres of Excellence concept is so appropriate for (ME)CFS care. Even after more than twenty years in the field, he says: 'I can't possibly understand everything there is to know about (ME)CFS. It's just far too complex and multisystemic. The pathophysiology is just too complicated to make it amenable to primary care'. The other clinicians on our panel agree that Centres of Excellence are needed".

(Note: this is in direct contradiction to Wessely's dictum that pervades the UK, namely: "We see no reason for the creation of specialist units"; "We do not think that specific guidelines on the

management of CFS should be issued for general practitioners" and "We believe that the majority of cases can be managed satisfactorily in primary care". Ref: Joint Royal Colleges' Report CR54, 1996. Whereas Wessely is deeply reviled by many in the UK ME community, by contrast, Dan Peterson has a depth of compassion and has dedicated his life to helping (ME)CFS patients and they love him for it).

"Pharmacological approaches have failed to resolve (ME)CFS. As Stephen Straus, MD, says in a 2004 JAMA article: 'No drugs prove to ameliorate the core feature of (ME)CFS: physical and mental fatigue so profound and oppressive that the term *fatigue* seems inadequate to describe it' ".

"Dr Renee Taylor, professor at the University of Illinois at Chicago, explains: 'Losses with (ME)CFS are profound, multifaceted and not limited to social, economic and functional losses' ".

"One of the most controversial treatments for (ME)CFS is cognitive behavioural therapy (CBT). Some patients are fiercely opposed to it because they believe it suggests that if they'd just change their behaviour or their attitudes about the illness, they would get better. This opposition has been strengthened by the British approach to CBT".

" 'I don't take the British point of view that CBT is the one thing you can do to effectively treat (ME)CFS' says (Professor) Klimas. Lapp agrees. 'In my opinion CBT is widely but unfairly maligned because of the British approach, which presumes that (ME)CFS has no organic basis and is therefore contradictory to current science. This type of CBT assumes somatic symptoms are perpetuated by errant illness beliefs and maladaptive coping'. Bell (says) 'It won't suddenly make patients better'. Peterson says he's 'not convinced of the efficacy of CBT' ".

"The bitter, unpalatable reality is that (ME)CFS patients can be pro-active, they can have a good attitude, they can try various drugs and non-drug interventions, and they can still remain ill, even profoundly disabled".

From "Fast Facts: A New Definition of Exercise" by Dr Christopher Snell from University of the Pacific

“It’s somewhat ironic that for an illness where patients are often diagnosed as deconditioned and characterised as lazy, exercise exacerbates symptoms rather than relieving them. Well-meaning health care professionals often recommend aerobic exercise as a cure-all for the symptoms of (ME)CFS without fully understanding the potential consequences of their prescriptions. As anyone with (ME)CFS who has attempted to ‘get fit’ using traditional approaches to exercise knows, the results can be devastating”.

From “Patient Perspectives” by Brian Bernard (the 12 year old son of two physicians)

“(ME)CFS is not death, but it takes your life away. It’s very limiting. It engulfs you in uncertainty because it’s so unpredictable. With (ME)CFS, you never know what the outcome will be. It can change your life forever”.

The CFIDS Association Special Issue costs $12 and can be obtained by telephoning (from the UK)

001-704-364-0016.