

**This is a recap of studies and relevant articles on ME/CFS published during 2012** (formerly posted on our News around the Web page).

[Half of CFS patients with high HHV-6 & EBV titers improve 30% or better on Valcyte: Montoya](#) (ProHealth) Review of a recent article, "Response to valganciclovir in chronic fatigue syndrome patients with human herpesvirus 6 and Epstein-Barr virus IgG antibody titers", published by Jose G Montoya, et al, in the *Journal of Medical Virology*, Oct 10, 2012;84(12), pp 1967-1974.

[Longitudinal investigation of natural killer cells and cytokines in chronic fatigue syndrome/myalgic encephalomyelitis](#) (BioMed Central, open access article, as PDF) Brenu et al, a research group from Australia which also included Dr. Daniel Peterson, a well-known CFS/ME specialist from Nevada, USA, studied Natural Killer (NK) cell cytotoxic activity, NK cell subsets and cytokines in patients with CFS/ME over the course of a 12 month period. Their research was published in the *Journal of Translational Medicine*, 2012, 10:88, and for the entire period of time, they consistently found altered regulation of immunological function, in particular reduced cytotoxic activity of innate immune cells, in CFS/ME patients.

[Constellation of 5 immune markers - may be diagnostic for post mono ME/CFS](#) (ProHealth) ProHealth provides a summary about a study published in the *Journal of Translational Medicine*, Sept. 13, 2012, by a group of ME/CFS researchers at clinics in Canada and several US states that looked at broad range of cytokines in patients who had developed an infection with the same pathogen, Epstein-Barr Virus (EBV), and remained ill at 24 months post infection. The study was able differentiate these patients from recovered control subjects by identifying an atypical immune response in post-infection group. This peer-reviewed article can be downloaded as a PDF (for free) at: [Journal of Translational Medicine ISSN 1479-5876](#)

[Mitochondrial dysfunction and the pathophysiology of Myalgic Encephalomyelitis/ Chronic Fatigue Syndrome \(ME/CFS\)](#) - link to original, full text article. [International Journal of Clinical and Experimental Medicine, published June 30, 2012; Volume 5, Issue 3:208-220] The authors

of this study, Norman E Booth, Sarah Myhill, and John McLaren-Howard, found measurable mitochondrial dysfunction in white blood cells in all patients tested which correlated with the severity of the illness.

[ME/CFS associated with later life non-Hodgkin lymphoma: Medicare statistics](#) (ProHealth) An article based on a study, "Chronic fatigue syndrome and subsequent risk of cancer among elderly US adults" (Cancer, May 30, 2012) that looked at chronic immune activation or an infection in CFS which might explain this increased risk.

["The NIH on ME/CFS in 2012: Pt II - the STUDIES!"](#) Cort Johnson, the creator of the Phoenix Rising website, writes about the challenges and rigorous procedures that investigators face when applying to the National Institutes of Health (NIH) for research grants. This investigative piece includes a comprehensive list of ME/CFS research and clinical trials, in progress or about to end, funded by the NIH.

["A Double-Blind, Placebo-Controlled, Randomized, Clinical Trial of the TLR-3 Agonist Rintatolimod in Severe Cases of Chronic Fatigue Syndrome"](#) (PLoS ONE, Mar 14, 2012, link to free, open access, full text article) Research results from a 12-site clinical trial of rintatolimod (U.S. brand name, Ampligen) show objective improvement in severe CFS. Rintatolimod has been used to treat ME/CFS in Canada and several European countries since the late 1990s, but in the U.S. it has been met by many delays and conflicts.

["Dysfunction Junction: The ANS and CFS"](#) (Research1st – CFIDS Association of America) An article by Alan Pocinki, MD, FACP at the George Washington University Hospital highlighting the impact of autonomic nervous system (ANS) on ME/CFS. Also look for links included under *Editor's Note* to two more informative articles on ANS dysfunction and orthostatic intolerance.

["CAA Studies Target New Areas In ME/CFS"](#) (Phoenix Rising) Cort Johnson reviews seven studies where were funded at \$2 million dollars by the CFIDS Association of America (CAA). This research will examine various aspects/problems of ME/CFS brain, immune cells as well as investigate drug repurposing (i.e., determine usefulness of other approved treatments for ME/CFS).

["Chronic fatigue syndrome and impaired peripheral pulse characteristics on orthostasis—a new potential diagnostic biomarker"](#) (Physiological Measurement, vol. 33, p. 231-241, 2012) An in-depth evaluation of pulse wave analysis in CFS patients and its potential use as illness biomarker.

[“Loss of capacity to recover from acidosis on repeat exercise in chronic fatigue syndrome: a case-control study”](#) (PubMed, Feb, 2012) Research published in the European Journal of Clinical Investigation that provides more evidence in how exercise impacts individuals with CFS differently from healthy controls.

[“Understanding the Immune System”](#) A good, basic explanation, with illustrations, of the immune system response prepared by the National Institute of Allergy and Infectious Diseases (NIAID). Once at the NIAID site, click/select desired subtopic to view from the left side bar.

[Wayne State Researcher Seeks To Link Genome Instability, Chronic Fatigue](#) (CBS Detroit, April 1, 2012)

[Dr. Dan Peterson - Working to Turn the Tide for ME/CFS](#) (ProHealth) A compilation of excerpts from a discussion with Dr. Dan Peterson (an ME/CFS specialist from Nevada) and Cort Johnson, founder of Phoenix Rising, reviewing current or upcoming projects which could ultimately improve treatment and diagnosis of ME/CFS.

[“ME Letter March 2012”](#) (Posted by Charles W. Lapp, MD, Hunter-Hopkins Center, P.A.) Check out “Ask The Doctor”, which is a blog where patients can submit questions to doctors at the Hunter-Hopkins Center.

### **List of videos or audios released by researchers during 2012 on various topics pertaining to ME/CFS:**

[“Webinar: Cognition & CFS, What Do We know?”](#) (Research1st, CFIDS Association of America) Full audio from April 11, 2012 presentation by program faculty: Dr. Gudrun Lange, Professor of Radiology at New Jersey Medical School and Dr. Suzanne Vernon, Scientific Director of the CFIDS Association of America.

[Now Available for Viewing](#) A series of videos made by Dr. Kenneth Friedman for cfsKnowledgeCenter, during 2012, covering physiological aspects of ME/CFS, causes, biomarkers, and more. Once at the ME-CFSCommunity home page (part of the cfsKnowledgeCenter organization), please follow their instructions on how to sign in and access the videos and other valuable information.

[Video: Professor Marco Ruggiero's research on Gc-MAF](#) (CFS Patient Advocate, *vimeo* of approx. 29 min.) Video interview of Prof. Ruggiero, in Florence, reviewing his work with Gc-MAF (group component macrophage activating factor) and development of a promising probiotic substance, but which he cautions is still in its very early stages.

[Dr. Peterson Says 'Hold On, There's Hope'](#) (Pro-Health) A video interview (approximately 11 minutes long) of leading 'chronic fatigue syndrome' clinician Daniel Peterson, MD by ME/CFS Alert (episode 26) co-host Llewellyn King

[VIDEO: ME/CFS Alert # 31 - Virologist Konnie Knox](#) (ProHealth) Llewellyn King interviews Konstance Knox, PhD, a renowned virologist from Milwaukee, who has collaborated with Dr. Dan Peterson on ME/CFS research since 1996. She has a particular interest in the neurocognitive component of this illness and reviews her theories on the role of viruses in ME/CFS as well as Fibromyalgia.

[VIDEO: ME/CFS Alert #32: Staci Stevens explains post-exertion malaise testing](#) (ProHealth) Llewellyn King features Staci Stevens, an exercise physiologist at the Pacific Fatigue Lab in Stockton, CA, who describes the testing process for post exertion malaise (PEM) and explains how it can provide objective evidence of PEM.