## conferenceseries.com

International Conference on

## Fibromyalgia and Chronic Pain

June 15-16, 2016 Philadelphia, USA

Multiple co-infections (*Mycoplasma*, Chlamydia, *Human Herpes Virus*-6) in blood of patients with fibromyalgia and chronic fatigue syndrome: Association with signs and symptoms severity

Garth L Nicolson

Institute for Molecular Medicine, USA

Previously we and others found that a majority of chronic fatigue syndrome (CFS) and fibromyalgia (FM) patients showed evidence of systemic *mycoplasma* infections using a polymerase chain reaction assay for four *Mycoplasma* species. Consistent with previous results, patients in the current study (n=100, CFS/FM) showed a high prevalence (overall 62%) of *mycoplasma* infections. Using forensic polymerase chain reaction we also examined whether these same patients showed evidence of infections with *Chlamydia pneumonia* (overall 8.5% positive) and/or active human herpes virus-6 (HHV-6, overall 30.7% positive). Since the presence of one or more infections may predispose patients to other infections, we examined the prevalence of *C. pneumoniae* and HHV-6 active infections in *mycoplasma*-positive and -negative patients. We found that the incidence of *C. pneumoniae* or HHV-6 was similar in *Mycoplasma*-positive and -negative patients, and the converse was also found in active HHV-6-positive and -negative patients. Control subjects (n=60) had low rates of *mycoplasma* (6%), active HHV-6 (9%) or chlamydial (3%) infections, and there were no co-infections in control subjects. Differences in bacterial and/or viral infections in FM/CFS patients compared to control subjects were significant (p<0.01). Severity and incidence of patients' signs and symptoms were compared. Although there was a tendency for patients with multiple infections to have more severe signs and symptoms (p<0.01), the only significant differences found were in the incidence and severity of signs and symptoms in patients with multiple co-infections of any type compared to the other groups (p<0.01). There was no correlation between the type of co-infection and severity of signs and symptoms. The results indicate that a large fraction of FM/CFS patients show evidence of bacterial and viral infections, and these infections may contribute to the severity of signs and symptoms.

## **Biography**

Garth L Nicolson, PhD, MD (H) is the President, Chief Scientific Officer and Professor Emeritus at the Institute for Molecular Medicine in Huntington Beach, California. Having published over 675 medical and scientific papers, including editing 20 books, he has served on the Editorial Boards of 30 medical and scientific journals. He has won many awards, including the Burroughs Wellcome Medal, Royal Society of Medicine (London), Stephen Paget Award, Metastasis Research Society, US National Cancer Institute Outstanding Investigator Award, and Innovative Medicine Award (Canada). He is Colonel (Honorary) of the US Army Special Forces and US Navy SEAL (Honorary) for Armed Forces and veterans' illnesses.

gnicolson@immed.org

**Notes:**