



## The French Chronic Fatigue Syndrome Association decides to clinically evaluate the ME/CFS pathogenesis model produced by Bio-Modeling Systems

Paris, France July 17, 2018: The Scientific Committee of the French Chronic Fatigue Syndrome Association (ASFC) has decided to evaluate in clinic the CADI™ (Computer Assisted Deductive Integration) model of CFS pathogenesis mechanisms produced by Bio-Modeling Systems (BMSystems) to bring novel diagnostic and therapeutic strategies faster to patients. The two organizations will combine their competencies to improve understanding of the physiopathology and to accelerate treatment discovery for this poorly served, debilitating disorder for which challenges are considerable and therapeutic approaches non-satisfactory. To this end, the partners have launched an innovative research program which combines the scientific and clinical know-how of the Scientific and Medical teams attached to the Association with BMSystems' heuristic CADI™ Discovery modeling platform and the scientific talents of its team of biologists.

More specifically, BMSystems has constructed a CADI™ model that, by integrating immunological dysregulations with their systemic metabolic, physiological and cognitive consequences, describes and explains the causal CFS mechanisms and their modes of clinical progression, leading to the formulation of potential targeted treatments. The purpose of this collaboration is to evaluate in the clinic the CADI™ model's predictions and open new avenues that will be decisive for the understanding, the diagnosis and the treatment of the disease. The CADI™ model construction was entirely self-financed by BMSystems, revealing its confidence to jointly identify and characterize mechanisms that will quicker provide specific combined therapies to the patients.

The scientific program is placed under the shared leadership of Pr. Jean-Dominique de Korwin (Department of Internal Medicine, University Hospital of Nancy, Lorraine University) President of the Scientific Committee of the ASFC, Dr. François Iris, founder & CSO of BMSystems and Dr. Thanos Beopoulos, Integrative Biologist at BMSystems.

Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) is a major, yet severely under-estimated public health burden that needs novel, disruptive conceptual reconsideration that can drive the renewal and the evolution of therapies.

About ME/CFS: Myalgic Encephalomyelitis/Chronic Fatigue Syndrome remains a debilitating condition for the patient and a confusing one for the physicians, both because of diagnostic difficulties and poorly codified management. Despite numerous studies, its pathophysiology remains unclear, but a multifactorial origin is suspected with triggering (infections) and maintenance (psychological) factors as well as the persistence of inflammatory (low-grade inflammation, microglial activation...), immunologic (decrease of NK cells, abnormal cytokine production, reactivity to a variety of allergens, role of estrogens...) and muscular (mitochondrial dysfunction and failure of bioenergetic performance) abnormalities at the origin of multiple dysfunctions (endocrine, neuromuscular, cardiovascular, digestive...). The frequency of CSF is variously appreciated, depending on the criteria of definition, with prevalence between 0.2 and 2.6% in Western countries. The ratio of women to men is 4/1, with predominance in young adults (20-40 years) but with possible attack at any age and a genetic predisposition. Between 836,000 and 2.5 million Americans and between 150,000 and 300,000 French people would suffer from CFS with often severe degrees of disability generating high health costs and distress.

About Bio-Modeling Systems (BMSystems):

Bio-Modeling Systems, an innovative company founded in 2004, is the first and, to date, only company to successfully create in-silico heuristic models validated in-vivo. BMSystems' models have been built by its biologists using an integrated IT solution called CADI™ (Computer Assisted Deductive Integration) and have led to discoveries and patents in the fields of infectious diseases, oncology, neurology, psychiatry, dermatology, immunology, metabolic disorders, innovative bioprocesses for industrial biotech and the creation of new companies exploiting these patents. BMSystems' models describe the biological phenomena involved in pathological states and provide novel mechanistic integrations to explain the cause of certain diseases, identify and select predictive biomarkers, offer new combinations of molecules and new therapeutic strategies, thereby contributing to the development of Mechanism-Based Medicine.

For more information and access to presentations & publications, please visit <http://www.bmsystems.net>.

About the French Chronic Fatigue Syndrome Association (ASFC):

ASFC is the only association representing patients with ME/CFS approved by the French Ministry of Health in 2015. The association provides a phone hotline and organizes regular meetings between patients and volunteers everywhere in France, and an annual meeting with expert scientists. ASFC welcomes everyone suffering from unexplained chronic fatigue and ME/CFS, informs and refers them to specialized centres for an accurate diagnosis. The main missions of the Scientific Council are to inform and advise the ASFC on the development of knowledge on ME/CSF and patient care, to propose research protocols and strategic directions for recognition of ME/CFS in France.

President of ASFC: Mr. Robert SCHENK

Members of the Scientific Committee of the ASFC involved in the project: Pr. François-Jérôme AUTHIER, Pr. Ingrid BANOVIC, Dr. Grégoire COZON (PhD), Dr. Stéphane DELLIAUX (PhD), Mrs Isabelle FORNASIERI (PhD), Dr. Alaa GHALI, Pr. Yves JAMMES, Mrs Emmanuelle JOUET (PhD), Pr. Jean-Dominique de KORWIN, Pr. Bernard LEBLEU, Dr. Frédérique RETORNAZ.

For more information, please visit <http://www.asso-sfc.org>

## Press Contacts

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