PROGRAM

Wednesday, September 3, 2008

Opening Session

9:00  Opening Remarks  Yoshiki Nishizawa
9:10  Greeting  Nobuya Hashimoto
9:20  Greeting  Nancy G. Klimas
9:30  Greeting  Suzanne D. Vernon

Keynote Lectures  Chairs: Yasuyoshi Watanabe / Benjamin H. Natelson

9:40  KL-01 Immune and neuroendocrine networking, and novel approaches to biomarker discovery in CFS/ME and related illnesses  Nancy G. Klimas  University of Miami and the Miami Veteran Healthcare System, USA
10:10  KL-02 The epidemiology of fatigue and Chronic Fatigue Syndrome  Peter D. White  Barts and the London Medical School, London, UK
10:40  Coffee Break

Chairs: Yoshiki Nishizawa / Birgitta M. Evengård

11:00  KL-03 A genomic approach to understand the biology of fatigue and fatiguing illness to improve objective diagnosis and treatment  Suzanne D. Vernon  CFIDS Association of America, USA
11:30  KL-04 Fatigue science for human health  Yasuyoshi Watanabe  The 21st Century COE Program, “Base to Overcome Fatigue”, MEXT, Molecular Imaging Research Program, RIKEN, Department of Physiology, Osaka City University Graduate School of Medicine, JST/RISTEX, Japan

12:10-13:00 Luncheon Seminar  [sanofi-aventis K.K., Astellas Pharma Inc.]  Chair: Yoshiki Nishizawa

Association between metabolic syndrome and insomnia  Naohisa Uchimura  Department of Neuropsychiatry, Kurume University School of Medicine, Fukuoka, Japan
[Symposium 1] Chronic Fatigue Syndrome (CFS) and Related Diseases(I)

Chairs: Kenny L. De Meirleir / Hirohiko Kuratsune

13:10  **S1-01** Biomarkers in CFS
       Birgitta M. Evengård

13:35  **S1-02** Chronic Fatigue Syndrome & Fibromyalgia: An exploration of differences
       Benjamin H. Natelson

14:00  **S1-03** Dynamics of brain structure in CFS
       Floris P. de Lange

14:25  **S1-04** Neural mechanisms underlying chronic fatigue (P-07)
       Masaaki Tanaka

14:50  **S1-05** Ventricular CSF lactate is elevated in Chronic Fatigue Syndrome compared to generalized anxiety disorder: An in vivo $^1$H magnetic resonance spectroscopic imaging study
       Dikoma C. Shungu

15:15  ----------------------  Coffee Break  ----------------------

Chairs: Leonard A. Jason / Kazuhiro Kondo

15:35  **S1-06** Scottish centre for the study of fatigue science: DNA microarray analysis of gene expression in Chronic Fatigue Syndrome
       John W. Gow

16:00  **S1-07** Dipeptidyl peptidase IV (DDPIV/CD26) and neuropeptide Y (NPY): Biomarkers for Chronic Fatigue Syndrome
       Mary A. Fletcher

16:25  **S1-08** A population-based twin study of functional somatic syndromes
       Kenji Kato

16:50  **S1-09** A new Japanese guideline for Chronic Fatigue Syndrome
       Tokuzo Matsui

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17:30-18:30  Poster Discussion

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19:00-21:00  Buffet Dinner

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### Symposium 2] Chronic Fatigue Syndrome (CFS) and Related Diseases(II)

**Chairs: Suzanne D. Vernon / Hidenori Koyama**

<table>
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<tr>
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<th>Presenter(s)</th>
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<tbody>
<tr>
<td>8:30</td>
<td>S2-01</td>
<td>Viral DNA in the gastric and intestinal mucosa of patients with CFS</td>
<td>Kenny L. De Meirleir</td>
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<tr>
<td>8:50</td>
<td>S2-02</td>
<td>Increased D-lactic acid intestinal bacteria in patients with CFS</td>
<td>Kenny L. De Meirleir</td>
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<tr>
<td>9:10</td>
<td>S2-03</td>
<td>Identification of novel HHV-6 latent protein associated with mood</td>
<td>Kazuhiro Kondo</td>
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<td></td>
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<td>disorders and molecular mechanism of fatigue due to overwork</td>
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<td>9:35</td>
<td>S2-04</td>
<td>Immunologic and virologic profiling of individuals with ME/CFS</td>
<td>Judy A. Mikovits</td>
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<td>reveals distinct pathogen associated signatures within a well</td>
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<td>characterized cohort.</td>
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<td>10:00</td>
<td>S2-05</td>
<td>Chronic Fatigue Syndrome and major depressive disorder</td>
<td>Nobuo Kiriike</td>
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**Coffee Break**

### Symposium 3] Measure/Scale of Fatigue

**Chairs: Nancy G. Klimas / Kazuhiro Iwai**

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<tr>
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<tr>
<td>10:40</td>
<td>S3-01</td>
<td>Evaluation of fatigue by acceleration plethysmography (Part.I)</td>
<td>Kouzi Yamaguti</td>
</tr>
<tr>
<td>11:00</td>
<td>S3-02</td>
<td>The CardioPulmonary Exercise Test (CPET) for the differential diagnosis of chronic fatigue</td>
<td>Ruud C. Vermeulen</td>
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<tr>
<td>11:20</td>
<td>S3-03</td>
<td>Heart rate variability can have an insight into working-quality of white-collar jobs</td>
<td>Jun-ichi Koizumi</td>
</tr>
<tr>
<td>11:40</td>
<td>S3-04</td>
<td>Non-arbitrary detection of flicker fusion threshold with pupil diameter and visual evoked magnetic field</td>
<td>Nobuyoshi Harada</td>
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<tr>
<td>12:00</td>
<td>S3-05</td>
<td>Alternans lowers the scaling exponent of heartbeat fluctuation dynamics: A detrended fluctuation analysis in animal models and humans for a health check up</td>
<td>Toru Yazawa</td>
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**Luncheon Seminar**

**[Soiken Holdings Inc. Japan Preventive Medicine Inc.]**

**Chair: Yosky Kataoka**

- Anti-fatigue effects of imidazole dipeptides
- Masaaki Tanaka
- Department of Biomarker and Molecular Biophysics, Osaka City University Graduate School of Medicine, Osaka, Japan

Chairs: Peter D. White / Kiyoshi Matsumura

13:35  **S4-01** Fatigue signalings in the brain
       Yosky Kataoka
14:00  **S4-02** Disorders of homeostasis centers in fatigued rat
       Hiroshi Kiyama
14:25  **S4-03** Disturbed heme metabolism in the liver of fatigue model rats and its involvement of fatigue
       Kazuhiro Iwai
14:50  **S4-04** Brain mechanisms of immunologically induced fatigue in the rat
       Toshihiko Katafuchi
15:15  ----------------------  Coffee Break  ----------------------

Chairs: Floris P. de Lange / Hiroshi Kiyama

15:35  **S4-05** Sex difference in the stress response to fasting
       Mika Jikumaru
16:00  **S4-06** Imaging of lactate utilization in the brain *in vitro* and *in vivo*
       Kiyoshi Matsumura
16:25  **S4-07** Intermittent cold stress causes a long-term allodynia and hyperalgesia in mice, a model for
       generalized chronic pain syndrome or Fibromyalgia
       Hiroshi Ueda

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16:50-18:00  Poster Discussion
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19:00-21:30  Reception
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Friday, September 5, 2008

[Symposium 5] Childhood/Adolescent Fatigue and Learning Motivation
Chairs: Katherine S. Rowe / Teruhisa Miike

8:30  **S5-01** Sleep problems and Chronic Fatigue Syndrome in childhood
      Teruhisa Miike

8:55  **S5-02** Autoantibodies generating fatigue long before the onset of the diseases in children
      Yasuhiko Itoh

9:20  **S5-03** Natural history of Chronic Fatigue Syndrome in adolescents in Australia
      Katherine S. Rowe

9:45  **S5-04** Motivation for learning, fatigue and sleep; from the results of the cohort study
      Sanae Fukuda

10:10 **S5-05** Neural substrates of academic achievement motivation related to neural mechanism of fatigue
        Kei Mizuno

10:35 ------------------- Coffee Break -------------------

[Symposium 6] Treatment and Fatigue
Chairs: John W. Gow / Masaaki Tanaka

10:55  **S6-01** Relationship between fatigue and the daily diet in Japan (P-22)
       Hirohiko Kuratsune

11:20  **S6-02** Behavioural treatments for Chronic Fatigue Syndrome
       Peter D. White

11:45  **S6-03** Biological predictors of change following participation in non-pharmacologic interventions
       Leonard A. Jason

12:10-13:10 Lunch

13:20  **S6-04** Psychosomatic treatment and management of Chronic Fatigue Syndrome
       Chiharu Kubo

13:45  **S6-05** Fatigue in patients with end-stage renal diseases
       Hidenori Koyama

14:10  **S6-06** Development of anti-fatigue food: Results from human studies
       Yoshitaka Kajimoto

Closing Remark
14:35  Hirohiko Kuratsune
Poster Session

P-01 A two-year follow-up study of psychiatric disorders comorbid with Chronic Fatigue Syndrome (CFS)  
Yasunori Matsuda

P-02 Summary of patients with chronic fatigue visiting to medical experts in fatigue  
Yukiko H. Kato

P-03 Cognitive Behavioral Therapy (CBT) for patients with Chronic Fatigue Syndrome: Comparing CBT in group and individual therapy  
Nahoko Kusaka

P-04 No difference of parvovirus B19 prevalence between Chronic Fatigue Syndrome patients and healthy individuals in Japan  
Yukiko H. Kato

P-05 Evaluation of fatigue by acceleration plethysmography (Part.II)  
(From the view point of complexity system)  
Kouzi Yamaguti

P-06 Experimental therapeutic approach with polymyxin B column absorption to Chronic Fatigue Syndrome  
Kazuki Miura

P-07 Neural mechanisms underlying chronic fatigue  
Masaaki Tanaka

P-08 Job-related stress, job satisfaction, and working conditions among doctors in the regional core hospitals  
Sayuri Kaneko

P-09 Physical performance tests are useful for the evaluation of fatigue induced by physical load in healthy people  
Tomohiro Sugino

P-10 Therapeutic effects of thalassotherapy on fatigue in healthy young women  
Kuniaki Takagi

P-11 Increase in serotonin release in human brain induced by exercise: A PET study  
Toshihiko Fujimoto

P-12 Investigation of Okinawa-spa effect from the view point of EEG power value  
Toshiharu Kurita

P-13 The relationship between fatigue and visual evoked cortical magnetic response  
Yoshihito Shigihara

P-14 A preliminary trial of physiological fatigue evaluation using heart rate variability analysis  
Seiki Tajima

P-15 Salivary cortisol and self-reports of pleasure-displeasure of unmarried young people in contact with infant  
Kyoko Imai-Matsumura

P-16 Fatigue is associated with eating habits and intake of nutrients in general population  
Hisako Fujii

P-17 Infant-directed behavior and speech of university students: A basic study aiming at preventing childcare stress.  
Ai Nakagawa

P-18 Fatigue and metabolic syndrome among Japanese men and women  
Tetsuya Ohira
P-19 The evaluation of fatigue by using plethysmograph and self-organizing map  
Tetsuya Sasabe

P-20 Effect of acupressure points stimulation on ocular fatigue causes by VDT work  
Feng Hao Xu

P-21 Which aroma is the most effective for anti-fatigue? A preliminary study  
Sanae Fukuda

P-22 Relationship between fatigue and the daily diet in Japan  
Hirohiko Kuratsune

P-23 Imidazole dipeptides attenuate fatigue induced by physical load in human  
Sayaka Aoyagi

P-24 Examination of the high bright light therapy for the Childhood Chronic Fatigue Syndrome  
Takako Jodoi

P-25 Metabolic dysfunction and circadian rhythm abnormalities in children and adolescents with sleep disturbance  
Akemi Tomoda

P-26 The actigraphic evaluation of sleep-awake rhythm and daily activity level among with Child Chronic Fatigue Syndrome  
Junko Kawatani

P-27 Feedback from young people with Chronic Fatigue Syndrome on the perceived usefulness of various management strategies including alternative therapies  
Katherine S. Rowe

P-28 Aspects of intellectual ability in Childhood Chronic Fatigue Syndrome (CCFS)  
Miyuki Takano

P-29 The association between effort-reward imbalance for learning and fatigue in school children  
Sanae Fukuda

P-30 Learning motivation among early elementary school aged children - What would make them intrinsically motivated?  
Rika Okamura

P-31 Psychosocial predictors of fatigue among school children in Japan: The one-year follow-up study  
Emi Yamano

P-32 Children’s feeling transformation and health care in summer seaside camp  
Tadashi Yano

P-33 Examination of Hb/Alb as the simple screening of Sleep Apnea Syndrome (SAS) for psychiatric patients  
Tatsuyo Suzuki

P-34 Moxibustion improved pain in patients with Fibromyalgia  
Takeo Madarame

P-35 Activation of microglia and reduction of cerebral glucose metabolism in a mouse model of fatigue caused by sleep disturbance  
Miho Shukuri

P-36 Alterations of inflammatory responses to LPS in rat fatigue model  
Nobue Shishioh-Ikejima

P-37 Prolonged fatigue exhibits the opposed proliferation regulations in the anterior and intermediate pituitary cells  
Tokiko Ogawa

P-38 Aged garlic extract as an anti-fatigue agent  
Takeshi Nishihama

P-39 Genotype dependent antidepressant-like effect of green odor in mice  
Yasuhiro Nakatomi
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<td>P-40</td>
<td>Inflammatory cytokines expression in the brain is involved in poly I:C-induced immunological fatigue-like behavior in rats</td>
<td>Masanori Yamato</td>
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<td>P-41</td>
<td>Mechanisms of decreased [18F] 2-fluoro-2-deoxy-D-glucose accumulation in the brain of fatigued rats</td>
<td>Ko-hei Akazawa</td>
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<td>P-42</td>
<td>Effects of (-)-epigallocatechin gallate on an animal model of combined (physical and mental) fatigue</td>
<td>Yoshitake Baba</td>
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<td>P-43</td>
<td>A novel method of PET imaging for neuropsychiatric disorders in mice</td>
<td>Hiroshi Mizuma</td>
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<td>P-44</td>
<td>Non-REM sleep induction after excessive brain excitation: A possible pathway for central fatigue recovery</td>
<td>Yilong Cui</td>
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<td>P-45</td>
<td>The role of laminin-332 and -511 in the regulation of stress-induced alopecia</td>
<td>Daisuke Tsuruta</td>
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<td>P-46</td>
<td>Regulation of gastric emptying by reciprocal alteration between plasma catecholamine and ghrelin levels in a rat model of fatigue</td>
<td>Masahiro Ochi</td>
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<td>P-47</td>
<td>Expression of c-Fos in the central nervous system in a rat model for immunological fatigue induced by poly I:C administration</td>
<td>GuangHua Jin</td>
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<td>P-48</td>
<td>Changes in behavior and brain GABAergic activity by mental fatigue: PET study with macaque monkeys</td>
<td>Hirotaka Onoe</td>
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<td>P-49</td>
<td>Decrease of hepatic delta-aminolevulinate dehydratase activity in an animal model of fatigue</td>
<td>Tsuyoshi Tahara</td>
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<td>P-50</td>
<td>Up-regulation of aromatase in the fatigued model rats</td>
<td>Makoto Ozawa</td>
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