

**Bedside-to-Bench Conference
September 3-5, 2008
"IDIOPATHIC FATIGUE & AGING"**

SEPTEMBER 3, 2008 - EVENING SESSION

Introduction & Overview

TIME	SPEAKER	TOPIC/AGENDA ITEM
6:00-6:15PM	George Taffet, Neil Alexander	Orientation, "Fatiguability"
6:15-6:35PM	Susan Nayfield, Basil Eldadah	Highlights of previous exploratory conf, challenges of research in the field, domains of study, why focus on energy balance
6:35-6:55PM	Luigi Ferrucci	Dynamics of energy balance and use and relation to fatigue
6:55-7:30PM		<i>Discussion</i>

SEPTEMBER 4, 2008 - DAY 1

Continental Breakfast will be served.

TIME	SPEAKER	TOPIC/AGENDA ITEM
Energy utilization and its relationship to fatigue		
9:00-9:30AM	Luigi Ferrucci	Gender, body comp, diet, PA and energy balance
9:30-10:00AM	Francesco Celi	Thyroid and energy expenditure
10:00AM-10:30AM	Neil Alexander	Relationship between maximal and submaximal oxygen use and self-reported fatigue. Comment about "-ability" vs usual performance "fatiguability"
10:30AM-11:30AM	George Taffet and Evan Hadley	What does evidence about energy consumption and mitochondrial function with exercise have to do with fatigue of aging
11:30AM-12:10PM		<i>Discussion</i>
12:10PM-1:00PM		<i>LUNCH</i>

Mitochondrial and muscle contributions to energy balance and fatigue

1:00PM-1:30PM	Doug Wallace	Mitochondrial function and energy balance
1:30PM-2:00PM	Bret Goodpaster	Mitochondrial dysfunction and muscle
2:00PM-2:30PM	Jane Braun	Muscle nerve, Central versus peripheral fatigue, mitochondria
2:30PM-3:10PM		<i>Discussion</i>
3:10PM-3:30PM		<i>Break</i>

Central processes including inflammation and oxidative stress

3:30PM-4:00PM	Romain Meeusen	Central fatigue, neurotransmitters
4:00PM-4:30PM	Robert Dantzer	Psychoneuroimmunology, inflammatory factors in periphery indirectly influence central fatigue
4:30PM-5:00PM	Andrade	Oxidative stress and muscle fatigue
5:00PM-5:40PM		<i>Discussion</i>
5:40PM-6:40PM		<i>Working dinner in small groups. See Discussion Topics On Next Page.</i>
6:40PM-7:40PM		<i>Group Reports, Feedback, & Discussion</i>

SEPTEMBER 5, 2008 - DAY 2

Continental Breakfast will be served

TIME	SPEAKER	TOPIC/AGENDA ITEM
Disease-based models of fatigue mechanism and relation to aging and energy balance*		
8:00AM-8:30 AM	Donna Mancini	Congestive heart failure, oxygen utilization, and muscle NMR
8:30AM-9:00AM	Mariana Gerschenson	HIV
9:00AM-9:30AM	Charles Cleeland	Cancer-related fatigue, also psychoneuroimmunology
9:30AM-10:00AM	Phyllis Zee	Sleep disorders and energy utilization
10:30AM-11:10AM		<i>Discussion</i>
11:10AM-11:30AM		<i>Break</i>

Methodological Issues

11:30AM-12:00PM	Zeeshan Butt	Fatigue measurement approaches, NIH PROMIS initiative
12:00PM-12:30PM	Kong Chen	Performance measures related to energy expenditure and physical activity (including doubly labeled water, actigraphy)
12:30PM-1:30PM		<i>Lunch and small group sessions. See Discussion Topics On Next Page.</i>
1:30-2:30 PM		<i>Group Reports, Feedback, & Discussion. Summary discussion of priorities.</i>
2:30 PM		OPEN SESSION ENDS

Discussion Topics for Working Lunch & Dinner Sessions

Goals:

1. Identify gaps in the present research
2. Make recommendations regarding a research agenda (next steps)

Plan: All speakers & attendees will sign up for one of four work groups

- Two groups will focus on the questions below from a clinical (human) research perspective
- Two groups will focus on animal or basic-bench research foci.
- Each group will have approximately 8-10 participants

Evening dinner session (September 4, 2008)

1. What are the key mechanisms underlying fatigue with aging?
2. What are appropriate measures of fatigue?

The focus should also be on areas where there might be a knowledge gap, including the role of central (brain) regulation (and fatigue sensing), energy balance, and mitochondrial function on fatigue.

Afternoon lunch session (September 5, 2008)

1. How do we include fatigue measures in human observational and clinical trial studies?
2. How do we account for diseases and comorbidities that impact on fatigue?