# 4th Workshop on the Assessment of Adequate Intake of Dietary Amino Acids

**Program for the 4th AAAW**  
Hotel Okura Kobe: 2-1 Hatoba-cho Chuo-ku Kobe 650-8560 JAPAN, October 28-29, 2004

**Animal Models (and Biomarkers) for Assessing Adequate Dietary Intake of Branched-Chain Amino Acids (BCAA)**

- **Reception**: starting at 19:00 October 27

## 1st Day  Thursday, October 28

### Introduction:

Dr. Dennis M. Bier / USDA/ARS Children’s Nutrition Research Center, Baylor College of Medicine, USA  
09:00

### Introductory Lecture:

An overview of the molecular and biochemical basis of leucine/BCAA catabolism  
Dr. Robert A. Harris / Indiana University, USA  
09:15

### Session I: Differences between nutritional versus toxicological effects

**Session Chair:**  
Dr. John D. Fernstrom / University of Pittsburgh, USA and  
Dr. Yuzo Hayashi / NPO Communication Center for Food and Health Sciences, Japan

1. Brain amino acid requirements and toxicity: The example of leucine  
   Dr. Marc Yudkoff / The Children’s Hospital of Philadelphia, USA  
   10:00

   **Coffee Break**  
   10:30-11:00

2. Effects of branched-chain amino acids on brain function  
   Dr. John D. Fernstrom  
   11:00

3. Hormonal and peptide signaling effects  
   Dr. K. Sreekumaran Nair / Mayo Clinic, Rochester, USA  
   11:30

4. Modifying effect of essential amino acids in chemical carcinogenesis  
   Dr. Hideki Wanibuchi / Osaka City University, Japan  
   12:00

   **Lunch Break**  
   12:30-13:45

### Session II: Biomarkers for nutritional effects and toxicity

**Session Chair:**  
Dr. Motoni Kadowaki / Niigata University, Japan and  
Dr. Andrew G. Renwick / University of Southampton, UK

1. The role of leucine in the regulation of protein metabolism  
   Dr. Peter J. Garlick / University of Illinois, USA  
   14:00

2. Interactions among BCAAs, with reference to establishing safe intakes  
   Dr. Susan M. Hutson / Wake Forest University, USA  
   14:30

   **Coffee Break**  
   15:00-15:30
3. Markers associated with inborn errors of metabolism of BCAA and their relevance to upper levels of intake in healthy people  
   Dr. Fumio Endo / Kumamoto University, Japan

4. Transcriptomics & metabolomics of BCAA excess  
   Dr. Takeshi Kimura / Ajinomoto Co., Inc., Japan

**General Discussion 1:** Facilitators: Dr. John T. Brosnan / Memorial University of Newfoundland, Canada and Dr. Kyoichi Kishi / The University of Tokushima, Japan

Official Dinner

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**2nd Day  Friday, October 29**

**Session III: How similar are animals to humans with respect to BCAA metabolism**

_**Session Chair:** Dr. David H. Baker / University of Illinois, USA and Dr. Fumio Endo_

1. Clinical and quantitative observations of BCAA dosing in humans  
   Dr. Dwight E. Matthews / The University of Vermont, USA

2. Tolerance for branched-chain amino acids in experimental animals and humans  
   Dr. David H. Baker

3. Interrelationship between physical activity and BCAA  
   Dr. Michael Gleeson / Loughborough University, UK

4. BCAA & liver disease  
   Dr. Giulio Marchesini / University of Bologna, Italy

Coffee Break

**General Discussion 2:** Facilitators: Dr. Andrew G. Renwick and Dr. Ronald Walker / University of Surrey, UK

**General Discussion 3:** “Dr. Cynober’s protocol”  
_**Facilitators:** Dr. Andrew G. Renwick and Dr. Ronald Walker_

**Closing Remarks:** Dr. Luc A. Cynober / Hotel-Dieu Hospital and Paris 5 University, France

Farewell Lunch

Closed Executive Session