Management Group

Chairman
John R. Speakman
Shenzhen Institutes of Advanced Technology
Chinese Academy of Sciences
Shenzhen, China
Institute of Biological and Environmental Sciences
University of Aberdeen,
Aberdeen, Scotland, UK

John Speakman did his PhD under the supervision of David Bryant who was a pioneer in the use of DLW in the UK in the late 1970s. His own use of the technique started in 1985 when he moved to the University of Aberdeen. In the early 1990s he established his own analytical isotope lab in Aberdeen devoted to DLW applications. This facility now services the work of a large international group of collaborators. More than 50% of the studies using DLW in wild mammals have been performed by his group. In 1997 he published a book on the method which remains a definitive guide to its use. His work concerns the evolutionary context of the obesity epidemic and regulation/limitation of energy demands in wild animals. He received the Zoological Society of London Scientific medal for his studies of animal energy expenditure, the Saltire Society Scottish Science medal and the Chinese Academy of Sciences International collaboration award. He is a Fellow of the Royal Society and the UK Academy of medical Sciences, a member of the US National Academy of Sciences and an Academician of the Chinese National Academy.

Members (alphabetical order)

Amy Luke
Center for Community and Global Health Research,
Loyola University Medical Center
Maywood, Illinois, U.S.A.

Amy Luke received her doctorate in Human Nutrition and Nutritional Biology from the University of Chicago in 1994 under the mentorship of Dale Schoeller, who was the first to apply the doubly labelled water method to human studies. In 1994, she joined the Department of Preventive Medicine and Epidemiology at Loyola University Chicago as a post-doctoral fellow and introduced doubly labelled water methodology to a large-scale, international epidemiologic study of cardiovascular disease in populations of African descent. Her work has subsequently focused on the physiologic, environmental and genetic determinants of obesity and excess weight gain among African-origin populations at differing stages of social and economic development. She is currently Professor and Vice Chair of Public Health Sciences at Loyola, and is still engaged in a significant amount of fieldwork.

Herman Pontzer
Evolutionary Anthropology & Duke Global Health Institute
Duke University
Durham, North Carolina, U.S.A.

Herman Pontzer investigates the physiology of humans and apes to understand how ecology, lifestyle, diet, and evolutionary history affect metabolism and health. His research projects integrate fieldwork and laboratory methods. He also investigates the influence of ecology and evolution on musculoskeletal design and physical activity in humans and other primates. Field projects focus on small-scale societies, including hunter-gatherers and subsistence farmers, in Africa and South America. Lab research focuses on energetics and metabolism, including respirometry and doubly labelled water methods.
Jennifer Rood
*Pennington Biomedical Research Center*
*Baton Rouge, Louisiana, USA*

Jennifer Rood is a research professor and the Associate Executive Director for Core Services and Resources at LSU’s Pennington Biomedical Research Center in Baton Rouge, LA, where she also serves as chief of the Clinical Chemistry and Mass Spectrometry labs. In addition, she is a clinical adjunct professor for the Endocrinology and Pathology departments of LSU Health Sciences Center-New Orleans. She obtained a Ph.D. in Pathology from LSU Medical Center in New Orleans in 1993 and is a member of the American Association for Clinical Chemistry and The Obesity Society. She is a certified by the American Board of Clinical Chemistry and a fellow in the National Academy of Clinical Biochemistry. Much of her work has focused on the amount and type of protein in the diet, how diet composition affects metabolism during and after weight loss, the role of protein in overfeeding and in weight gain, and the beneficial effects of calorie restriction. Since 2011, she has been awarded more than $14 million from the U.S. Department of Defense for research on nutrition, metabolism, and human physiology aimed at promoting warfighter resilience and improving warfighter readiness.

Hiroyuki Sagayama
*Faculty of Health and Sport Sciences*
*University of Tsukuba*
*Ibaraki, Japan*

Hiroyuki Sagayama received Ph.D at Fukuoka University (2015), and then first post-doctoral fellowship was at University of Wisconsin in 2015-2017 for doubly labelled water methodology and stable isotope analytical. Then he worked as a post-doc at Japan Institute of Sports Sciences and collected the body composition, energy expenditure and fitness of athletes’ data in 2017-2019. His research interests are body weight and composition regulation for athletes and obese people using stable isotope techniques and imaging methods. He also has been conducting the determination of estimated energy requirement using the doubly labelled water methods in variety of athletes.

Dale A. Schoeller
*Director, Isotope ratio core*
*Biotech Center and Nutritional Sciences*
*University of Wisconsin, Madison, Wisconsin, U.S.A.*

Dale Schoeller received his bachelor’s degree from the University of Wisconsin-Milwaukee in Chemistry (1970) and his PhD from Indiana University in Analytical Chemistry (1974). During his PhD training with John Hayes, he was introduced to stable isotope mass spectrometry. His first post-doctoral fellowship was with Peter Klein at the Argonne National Laboratory where he worked on stable isotope methodology for 13C breath tests. During this period he made the first application of the DLW method to humans to measure total energy expenditure (1982). He joined the faculty in Medicine at the University of Chicago where he chaired the Committee on Human Nutrition and Nutritional Biology from 1991-1997. In 1997, he joined Nutritional Sciences at the University of Wisconsin-Madison and now direct the Isotope Ratio Core Lab. He was awarded the Mead-Johnson Award from the American Society of Nutrition Sciences in 1987 for developmental work on the doubly labelled method, the Herman Award from the American Society of Clinical Nutrition in 2000 for work on the energetics of weight loss and obesity, the Atwater Award from the USDA Agricultural Research Service in 2005 for the body of work on human bioenergetics and the Friends of Mickey Stunkard Lifetime Achievement Award from The Obesity Society in 2016.
Klaas R. Westerterp  
*Department of Human Biology*  
*University of Maastricht*  
*Maastricht, The Netherlands*

Klaas R. Westerterp is professor of Human Energetics in the Faculty of Health, Medicine and Life Sciences and the School of Nutrition & Translational Research in Metabolism (NUTRIM) at Maastricht University, The Netherlands. He did his PhD at the University of Groningen. He then performed a three-year postdoc at Stirling University in Scotland where he worked with David Bryant and developed the DLW methodology. His first papers on the method date to the early 1980s and involved mostly studies of birds. He then did a two-year postdoc at the University of Groningen and the Netherlands Institute of Ecology (NIOO, KNAW) to continue his work on flight energetics in birds. In 1982 he became senior lecturer and subsequently full professor at Maastricht University in the Department of Human Biology. He published his first studies of human metabolism using DLW in 1984. His field of expertise is energy metabolism, physical activity, food intake and body composition, and energy balance under controlled conditions and in daily life. So far he published over 230 peer reviewed papers and book chapters on the method. He currently is editor in chief of European Journal of Applied Physiology.

William W. Wong  
*USDA/ARS Children’s Nutrition Research Center*  
*Department of Pediatrics*  
*Baylor College of Medicine*  
*Houston, Texas, U.S.A.*

William W. Wong is a Professor of Pediatrics at Baylor College of Medicine and the Director of the Gas-Isotope-Ratio Mass Spectrometry Laboratory at the USDA/ARS Children’s Nutrition Research Center in Houston, Texas. His research interests include childhood obesity prevention and treatment as well as the use of botanicals to prevent human diseases. He participated in the first calorimetric validation of the doubly labelled water (DLW) method in the 1980s and developed numerous sample preparation techniques to support the DLW method. He was the first to document the long-term reproducibility of the DLW method. Other than his own research using the DLW method, he has supported the DLW protocols in numerous studies with study population ranging from premature infants to pregnant and lactating women as well as studies on diseased populations, companion animals, and mammals.

Yosuke Yamada  
*Nutritional Sciences Department of Nutritional Science*  
*National Institute of Health and Nutrition*  
*National Institutes of Biomedical Innovation, Health and Nutrition*  
*Tokyo, Japan*

Yosuke Yamada is a researcher of National Institute of Biomedical Innovation, Health and Nutrition, Tokyo, Japan. He has received training about DLW at UW-Madison by Dale Schoeller in 2008, and got PhD at Kyoto University in 2009. He established the DLW analysis system at Fukuoka University in 2009-2010. He selected as Superlative Postdoctoral Fellow of Japan Society for the Promotion of Science in 2011-2014 (acceptance rate is about 0.5%). His research interests include healthy lifespan, calorie restriction, physical activity, sarcopenia prevention, and sports science. His research papers were awarded “65th Anniversary Celebration Article of J Gerontol Med Sci”, “Most Excellence Article in 2009 in Jap J Physiol Anthropol”, and selected as monthly editor’s choice articles of J Gerontol Biol Sci and J Appl Physiol. He received Young Investigators Awards from International Conferences of “Society on Sarcopenia, Cachexia and Wasting Disorders” and “International Osteoporosis Foundation & International Society for Clinical Densitometry”.
IAEA Representative
Alexia Murphy-Alford
Nutrition Specialist,
Nutritional and Health-related Environmental Studies Section, Division of Human Health, Department of Nuclear Sciences and Applications
International Atomic Energy Agency Vienna, Austria

Dr Alexia Alford is a Nutrition Specialist with the United Nation’s International Atomic Energy Agency. Before joining the Agency in 2016 she was the Theme Leader of Childhood Cancer at the Queensland Children’s Nutrition Research Centre, the University of Queensland, Australia and Body Composition Laboratory Manager. Her main research projects involved looking at body composition and energy expenditure in children with clinical conditions. She has written two invited book chapters and has over 60 research publications. Now at the IAEA, Dr Alford is responsible for providing technical nutrition expertise to the IAEA Member States to help them combat malnutrition in all its forms and use nuclear techniques to assess body composition and energy expenditure in the programming and evaluation of their nutrition goals. The main projects she is involved in are investigating body composition and energy expenditure in infancy, examining the link between maternal body composition and offspring body composition, evaluating stunting intervention programs, understanding body composition and energy expenditure in elderly adults, and exploring body composition and energy expenditure in cancer patients.

Database Support
Xueying Zhang
Chinese Academy of Sciences, Shenzhen, China

Cath Hambly
University of Aberdeen,
Aberdeen, Scotland, UK