International Journal of Endocrinology

Hindawi

Special Issue on

Metabolic Health and Obesity Phenotype: From Determinants to Outcomes

CALL FOR PAPERS

Obesity is associated with an increased risk of type 2 diabetes and cardiovascular disease (CVD), but not all obese individuals are equally affected. Even in the same category of increased body mass index (BMI), a subgroup of obese individuals manages to maintain normal metabolic function; these individuals are identified as "metabolically healthy obese" (MHO), compared with their "metabolically unhealthy obese" (MUO) counterparts. Likewise, not all lean subjects are metabolically healthy. A subgroup of normal weight individuals has unfavorable metabolic risk profiles, such as insulin resistance, glucose intolerance, high abdominal fat, increased blood pressure, or dyslipidemia; these individuals have been designated as "metabolically obese normal weight" (MONW) or "metabolically unhealthy normal weight" (MUNW), compared with their metabolically healthy lean counterparts. We have come to the realization that whole-body obesity, or its lack thereof, may not convey the most accurate information on health risk. Body composition, and particularly fat distribution (e.g., around the abdominal area), and its deposition in ectopic organs (e.g., in the liver or muscle) may be more informative for determining cardiometabolic risk in both lean and obese persons. Also, sarcopenic obesity (i.e., the combination of loss of muscle mass and obesity) is another form of obesity phenotype that is associated with unfavorable risk factor profile and is commonly observed in older individuals. Understanding these metabolic and obesity phenotypes may be important for identifying high-risk groups for type 2 diabetes and CVD and designing and delivering personalized management.

In the past decade, many studies have been performed to identify characteristics of metabolic health and obesity phenotype and their related epidemiological and clinical implications. Clearly, the metabolically healthy obese, metabolically unhealthy normal weight, and sarcopenic obesity phenotypes are the most interesting from both research and clinical perspectives. However, there are many issues that remain unresolved, such as lack of standardized definition, the natural history, and the long-term outcomes of these phenotypes. There have been studies assessing the role of genetic, clinical, and lifestyle-related factors, but more evidence is needed to better understand the determinants and outcomes of these metabolic health and obesity phenotypes from basic scientific, clinical, and epidemiological perspectives.

Potential topics include but are not limited to the following:

- Recent updates on metabolic and obesity phenotypes, including metabolically healthy obese, metabolically unhealthy normal weight, and sarcopenic obese phenotypes and their impact on type 2 diabetes, cardiovascular disease, and risk of mortality
- Controversy on the definition of metabolic health
- Clinical practice implications of metabolic and obesity phenotypes
- Prevalence of various obesity phenotypes by age, gender, race/ethnicity, and socioeconomic status and relation to metabolic health
- Role of nutrients, foods, and dietary patterns
- Role of physical activity
- Role of environmental factors
- The relationship between sleep deprivation and metabolic and obesity phenotypes
- Utility of biomarkers in identifying the various metabolic and obesity phenotypes and predicting their impact on cardiometabolic risk factor profile
- Impact of genetics, epigenetics, and gene-environment interactions
- Impact of metabolomics
- Impact of mental/behavioral health disorders
- Health-related outcomes according to metabolic health status
- Role of the gut microbiome in metabolic and obesity phenotypes
- Is there an "Asian diabetes phenotype?" Relative contribution of insulin resistance versus defects in insulin secretion from the viewpoint of metabolic and obesity phenotypes
- Fatty liver: cause or consequence in the development of type 2 diabetes from the viewpoint of metabolic and obesity phenotypes

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/ije/mhop/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor
Yong-Moon Park, National Institute of Environmental Health Sciences, Research Triangle Park, USA
markparkjecos@gmail.com

Guest Editors
Seung-Hwan Lee, Catholic University of Korea, Seoul, Republic of Korea
hwanx2@catholic.ac.kr

Faidon Magkos, Singapore Institute for Clinical Sciences (SICS), Singapore
faidon_magkos@sics.a-star.edu.sg

Sue-Anne T. E. Shiow, National University of Singapore, Singapore
mdcsates@nus.edu.sg

Helmut Schröder, Hospital del Mar Medical Research Institute (IMIM), Barcelona, Spain
hschroeder@imim.es

Submission Deadline
Friday, 2 February 2018

Publication Date
June 2018