

# PAN

---

## Physical Activity and Nutrition

### Review articles

- Bok Sil Hong / Kang Pa Lee  
A systematic review of the biological mechanisms linking physical activity and breast cancer
- Dae Yun Seo / Boo Geun Hwang  
Effects of exercise training on the biochemical pathways associated with sarcopenia
- Wan-Young Yoon / Kihyuk Lee / Jooyoung Kim  
Curcumin supplementation and delayed onset muscle soreness (DOMS): effects, mechanisms, and practical considerations

### Short communication

- Deunsol Hwang / Jong-beom Seo / Jisu Kim / Kiwon Lim  
Effect of mild-intensity exercisetraining with capsiate intake on fat deposition and substrate utilization during exercise in diet-induced obese mice

### Original articles

- Sang-Seok Nam / Hun-Young Park  
Effects of endurance exercise under hypoxia on acid-base and ion balance in healthy males
- Takeshi Hashimoto / Yoko Okada / Atsushi Yamanaka / Natsuhiko Ono / Keisuke Uryu / Isafumi Maru  
The effect of eleutherococcus on metabolism-associated protein expression in 3T3-L1 and C2C12 cells
- Il-bok Seo / Kang Pa Lee / Sun-young Park / Sang-hyun Ahn  
Therapeutic effect of Shinkiwghan, herbal medicine, regulates OPG/RANKL/RANK system on ovariectomy-induced bone loss rat

This journal was supported by the National Research Foundation of Korea Grant funded by the Korean Government(MOE).