

**Inside JEB**

**Size Matters i; Basal Metabolic Rate And Cellular Energetics i; Activity-Induced Variation Of Metabolism ii; Locomotion And Energy Demand ii; Circulation And Body Size ii; Life Span, Reproduction And Ecology iii; At The Crossroads Of Theory And Experiment iii**

**Editorial**

**Hoppeler, H. and Weibel, E. R.** Scaling functions to body size: theories and facts. 1573-1574

**Review articles**

**Basal metabolic rate and cellular energetics**

**West, G. B. and Brown, J. H.** The origin of allometric scaling laws in biology from genomes to ecosystems; towards a quantitative unifying theory of biological structure and organization. 1575-1592

**Hulbert, A. J. and Else, P. L.** Membranes and the setting of energy demand. 1593-1599

**Moyes, C. D. and LeMoine, C. M. R.** Control of muscle bioenergetic gene expression: implications for allometric scaling relationships of glycolytic and oxidative enzymes. 1601-1610

**White, C. R. and Seymour, R. S.** Allometric scaling of mammalian metabolism. 1611-1619

**Activity-induced variation of metabolism**

**Nagy, K. A.** Field metabolic rate and body size. 1621-1625

**Suarez, R. K. and Darveau, C. A.** Multi-level regulation and metabolic scaling. 1627-1634

**Weibel, E. R. and Hoppeler, H.** Exercise-induced maximal metabolic rate scales with muscle aerobic capacity. 1635-1644

**Locomotion energy and demand**

**Alexander, R. McN.** Models and the scaling of energy costs for locomotion. 1645-1652

**Marden, J. H.** Scaling of maximum net force output by motors used for locomotion. 1653-1664

**Biewener, A. A.** Biomechanical consequences of scaling. 1665-1676

**Circulation and body size**

**Bejan, A.** The constructal law of organization in nature: tree-shaped flows and body size. 1677-1686

**Dawson, T. H.** Modeling of vascular networks. 1687-1694

**Bishop, C. M.** Circulatory variables and the flight performance of birds. 1695-1708

**Chaui-Berlinck, J. G., Navas, C. A., Monteiro, L. H. A. and Bicudo, J. E. P. W.** Control of metabolic rate is a hidden variable in the allometric scaling of homeotherms. 1709-1716

**Lifespan, reproduction and ecology**

**Speakman, J. R.** Body size, energy metabolism and lifespan. 1717-1730

**Martin, R. D., Genoud, M. and Hemelrijk, C. K.** Problems of allometric scaling analysis: examples from mammalian reproductive biology. 1731-1747

**Marquet, P. A., Quiñones, R. A., Abades, S., Labra, F., Tognelli, M., Arim, M. and Rivadeneira, M.** Scaling and power-laws in ecological systems. 1749-1769