Lateral and ventral views of a CT-scanned skull of an adult male African lion, and log cube root of endocranial volume regressed against log skull basal length of *P. leo*. For details see Arsznov and Sakai, pp 275–289.
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larly, the active voice is usually preferable to the passive voice. Authors should also give thought to exact word usage. Taxonomic names and precise biological terms should be used to refer to animal groups, and vague, subjective descriptors such as ‘higher’ and ‘lower’ should be avoided. Similarly, the descriptive prefixes paleo-, archi-, and neo-—applied to cerebellum, cortex, or striatum imply an invalid phylogenetic sequence and should also be avoided. In addition, authors should refrain from the use of invalid typological concepts. Instead of ‘the fish’, a more accurate and specific category is preferable: ‘the channel catfish’, ‘silurid catfishes’, ‘all teleosts examined to date’, or ‘most actinopterygian fishes’, for example. Authors are also reminded that, by definition, there are no living primitive animals, only living animals with features that are either primitive or derived, which can be determined only by appropriate phylogenetic analysis.

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Outstanding pictures providing precious insights into prenatal human development

Gerd Steding

The Anatomy of the Human Embryo

A Scanning Electron-Microscopic Atlas

The present anatomical atlas concentrates on the early weeks of prenatal development of the human embryo. It comprises more than 800 scanning electron-microscopic pictures of specimens of exclusively human embryos. The three-dimensional appearing illustrations show the development of the external form of the face, neck, trunk and limbs. Besides, the brain and the viscera of the head, neck, thorax, abdomen and pelvis – all dissected into layers – are represented in their position and spatial form.

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Both parents and offspring are susceptible to adverse environmental conditions that alter their normal brain development and adaptations during reproduction, increasing their risk of mental problems in the short and long term. Pregnancy stress and anxiety alter the cognitive performance, memory, and behavior of mothers. Resulting in suboptimal maternal hormonal signals and inadequate care, they impact directly and indirectly on the developing baby in utero and in the neonatal stage.

This special issue of Neuroendocrinology is a collection of timely review articles from experts in the field of Mental Health Programming presented at the 'Parental Brain' Conference in Edinburgh in September 2010. A variety of mental health topics ranging from the neonatal to the juvenile and parental brain are discussed in detail.

The insight provided here from in-depth research into brain mechanisms underlying altered mental health marks the recent realization that mental health is susceptible to adverse programming from an early age and that real harm can be passed on inadvertently from generation to generation. Therefore 'The Parental Brain' offers valuable reading for scientists and clinicians interested in the impact of environmental conditions on mental health and how parental health contributes to long-term mental health in offspring.

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Programming Mental Health: Risk from Adverse Experience for Mothers and Offspring: Douglas, A.J.

Exposure to Prenatal Psychobiological Stress Exerts Programming Influences on the Mother and Her Fetus: Sandman, C.A.; Davis, E.P.; Buss, C.; Glynn, L.M.


Perinatal Selective Serotonin Reuptake Inhibitor Exposure: Impact on Brain Development and Neural Plasticity: Pawluski, J.L.

Prenatal Excess Glucocorticoid Exposure and Adult Affective Disorders: A Role for Serotonergic and Catecholamine Pathways: Wyrwoll, C.S.; Holmes, M.C.


Author and Subject Index
New insights into movement control after lesions

Spinal Circuits and the Musculoskeletal System
Translation of Basic Research into the Clinic

Editor
Richard L. Segal

This special issue presents a number of basic science studies investigating the interaction of the musculoskeletal system with spinal circuits in movement control and movement dysfunction, particularly in relation to peripheral nerve injury. At the same time, the necessity to translate basic science knowledge into clinical practice is emphasized and models of such a translation are discussed. The papers included in this issue report experiments with animal models such as cats and rats and discuss possible consequences following from these findings. Firstly, it is observed how transection and surgical repair of different nerve groups affect movement control. Also, it is illustrated how the motor system is capable of preserving the trajectories during locomotion in the face of paralysis of major muscle groups. Furthermore, effects of denervation of selected ankle extensors on movement control are tested and analyzed. Finally, the dampening effect of the popliteal fat pad on locomotion is examined, with possible implications for obesity.

This special issue furthers the understanding of the locomotor system after lesions and is essential for both basic scientists and clinicians treating people with movement dysfunctions such as physiatrists, neurologists, neurosurgeons, orthopedic surgeons, physical therapists and occupational therapists.

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The Necessity for Effective Interaction between Basic Scientists and Rehabilitation Clinicians: Segal, R.L.; Lewek, M.D.; McCulloch, K.; Mercer, V.S.

Papers
Short-Term Motor Compensations to Denervation of Feline Soleus and Lateral Gastrocnemius Result in Preservation of Ankle Mechanical Output during Locomotion: Prilutsky, B.I.; Maas, H.; Bulgakova, M.; Hodson-Tole, E.F.; Gregor, R.J.
Short-Term Effects of Muscular Denervation and Fasciotomy on Global Limb Variables during Locomotion in the Decerebrate Cat: Stahl, V.A.; Nichols, T.R.
Evidence that Popliteal Fat Provides Damping during Locomotion in the Cat: Falcon, I.; Stahl, V.A.; Nichols, T.R.
The rapidly expanding area of research known as neuroimmunomodulation explores the way in which the nervous system interacts with the immune system via neural, hormonal, and paracrine actions. Encompassing both basic and clinical research, Neuroimmunomodulation reports on all aspects of these interactions. Basic investigations consider all neural and humoral networks from molecular genetics through cell regulation to integrative systems of the body. The journal also aims to clarify the basic mechanisms involved in the pathogenesis of the CNS pathology in AIDS patients and in various neurodegenerative diseases. Although primarily devoted to research articles, timely reviews are published on a regular basis. To ensure high quality, all papers are reviewed by at least two referees, with every effort made to maintain a short publication time.

Selected contributions

Models of Aging of Neuroimmunomodulation: Strategies for Its Improvement:
De la Fuente, M. (Madrid); Gimenez-Llort, L. (Bellaterra)

When Immune–Neuro–Endocrine Interactions Are Disrupted: Experimentally Induced Arthritis as an Example: del Rey, A. (Marburg); Wolff, C. (Regensburg); Wildmann, J.; Randolf, A. (Marburg); Straub, R.H. (Regensburg); Besedovsky, H.O. (Marburg)


Intravenous Immunoglobulin Reduces Infarct Volume but Not Edema Formation in Acute Stroke: Walberer, M. (Golgen); Nedelmann, M.; Ritschel, N. (Giessen/Nauheim); Mueller, C. (Nauheim); Schierwatsch, M. (Giessen); Stolz, E. (Giessen/Nauheim); Bachmann, G. (Nauheim); Blaes, F. (Giessen); Gerriets, T. (Giessen/Nauheim)


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A collection of extraordinary essays on key issues in the natural sciences

GOTTFRIED SCHATZ

A MATTER OF WONDER
WHAT BIOLOGY REVEALS ABOUT US, OUR WORLD, AND OUR DREAMS

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Vision with an Eye to Ecology
A Tribute to Barrie Frost

21st Annual Karger Workshop, Chicago, Ill., October 16, 2009

Editors
Douglas R. Wylie
Andrew N. Iwaniuk

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Brain, Behavior and Evolution
Editors: Shettleworth, S.J. (Univ. Calif.)

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