Editorial: Encyclopedias of Life: From Diderot to the Yeti Crab

Book Review: Susan Longhito reviews Intuition by Allegra Goodman

REVIEW

M. Noguchi, V. Ropars, C. Roumestand, and F. Suizu
Proto-oncogene TCL1: more than just a coactivator for Akt

S. N. Birrell, L. M. Butler, J. M. Harris, G. Buchanan, and W. D. Tilley
Disruption of androgen receptor signaling by synthetic progestins may increase risk of developing breast cancer

C. K. Mathews and S. Song
Maintaining precursor pools for mitochondrial DNA replication

RESEARCH COMMUNICATIONS

Y. Shemesh, M. Cohen, and G. Bloch
Natural plasticity in circadian rhythms is mediated by reorganization in the molecular clockwork in honeybees

J. J. Yerbury, S. Poon, S. Meehan, B. Thompson, J. R. Kumita, C. M. Dobson, and M. R. Wilson
The extracellular chaperone clusterin influences amyloid formation and toxicity by interacting with prefibrillar structures

M. G. Quaranta, A. Napolitano, M. Sanchez, L. Giordani, B. Mattioli, and M. Viora
HIV-1 Nef impairs the dynamic of DC/NK crosstalk: different outcome of CD56^{dim} and CD56^{bright} NK cell subsets

PKC-dependent regulation of the receptor locus dominates functional consequences of cysteinyI leukotriene type 1 receptor activation

B. Hinz, O. Cheremina, J. Bachmakov, B. Renner, O. Zolk, M. F. Fromm, and K. Brune
Dipyrone elicits substantial inhibition of peripheral cyclooxygenases in humans: new insights into the pharmacology of an old analgesic

M. W. Wendeler, O. Nufer, and H.-P. Hauri
Improved maturation of CFTR by an ER export signal

N. Güngör, R. W. Godschalk, D. M. Pachen, F. J. Van Schooten, and A. M. Knaapen
Activated neutrophils inhibit nucleotide excision repair in human pulmonary epithelial cells: role of myeloperoxidase

Y. Lu, Y. Lv, Y. Ye, Y. Wang, Y. Hong, M. E. Fortini, Y. Zhong, and Z. Xie
A role for presenilin in post-stress regulation: effects of presenilin mutations on Ca^{2+} currents in Drosophila

(continued)
<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenosine receptor activation ameliorates type 1 diabetes</td>
<td>2379-2388</td>
</tr>
<tr>
<td>Mechano-sensitivity of epithelial sodium channels (ENaCs): laminar shear stress increases ion channel open probability</td>
<td>2389-2399</td>
</tr>
<tr>
<td>EGb 761 enhances adult hippocampal neurogenesis and phosphorylation of CREB in transgenic mouse model of Alzheimer's disease</td>
<td>2400-2408</td>
</tr>
<tr>
<td>Membrane topology structure of human high-affinity, sodium-dependent dicarboxylate transporter</td>
<td>2409-2417</td>
</tr>
<tr>
<td>EP2 prostanoid receptor promotes squamous cell carcinoma growth through epidermal growth factor receptor transactivation and iNOS and ERK1/2 pathways</td>
<td>2418-2430</td>
</tr>
<tr>
<td>Cannabis ameliorate cerebral dysfunction following liver failure via AMP-activated protein kinase</td>
<td>2431-2441</td>
</tr>
<tr>
<td>Receptor heterodimerization leads to a switch in signaling: β-arrestin2-mediated ERK activation by δ-specific opioid receptor heterodimers</td>
<td>2455-2465</td>
</tr>
<tr>
<td>Trypsin inhibitory loop is an excellent lead structure to design serine protease inhibitors and antimicrobial peptides</td>
<td>2466-2473</td>
</tr>
<tr>
<td>Hepatitis C virus core protein increases mitochondrial ROS production by stimulation of Ca(^{2+}) uniporter activity</td>
<td>2474-2485</td>
</tr>
<tr>
<td>Regulation of matrix metalloproteinase-2 (MMP-2) activity by phosphorylation</td>
<td>2486-2495</td>
</tr>
<tr>
<td>Astroglia-derived retinoic acid is a key factor in glia-induced neurogenesis</td>
<td>2496-2509</td>
</tr>
<tr>
<td>Magnetically driven plasmid DNA delivery with biodegradable polymeric nanoparticles</td>
<td>2510-2519</td>
</tr>
<tr>
<td>Single-dose intracerebroventricular administration of galactocerebrosidase improves survival in a mouse model of globoid cell leukodystrophy</td>
<td>2520-2527</td>
</tr>
<tr>
<td>Peroxynitrite mediates VEGF's angiogenic signal and function via a nitration-independent mechanism in endothelial cells</td>
<td>2528-2539</td>
</tr>
<tr>
<td>Exocytosis of norepinephrine at axon varicosities and neuronal cell bodies in the rat brain</td>
<td>2540-2550</td>
</tr>
</tbody>
</table>
Identification and selection of cardiomyocytes during human embryonic stem cell differentiation 2551-2563

Rat liver sinusoidal endothelial cells survive without exogenous VEGF in 3D perfused co-cultures with hepatocytes 2564-2579

Increased inflammation delays wound healing in mice deficient in collagenase-2 (MMP-8) 2580-2591

E. L. Herzog, J. Van Arnam, B. Hu, J. Zhang, Q. Chen, A. M. Haberman, and D. S. Krause
Lung-specific nuclear reprogramming is accompanied by heterokaryon formation and Y chromosome loss following bone marrow transplantation and secondary inflammation 2592-2601

T. Hashimoto, R. Hussien, S. Oommen, K. Gohil, and G. A. Brooks
Lactate sensitive transcription factor network in L6 cells: activation of MCT1 and mitochondrial biogenesis 2602-2612

P. Rosenberger, J. Khoury, T. Kong, T. Weismüller, A. M. Robinson, and S. P. Colgan
Identification of vasodilator-stimulated phosphoprotein (VASP) as an HIF-regulated tissue permeability factor during hypoxia 2613-2621

Phosphatidylethanolamine N-methyltransferase (PEMT) gene expression is induced by estrogen in human and mouse primary hepatocytes 2622-2632

Retraction 2633

Errata 2633

Cover Legend: John James Audubon (1785–1851), White Crowned Pigeon, Plate CLXXVII from The Birds of America (1827–1838); hand-colored engraving by Robert Havell; courtesy of the Library of the American Museum of Natural History/MBLWHOI Library consortium. This plate from Audubon’s The Birds of America is an example of a style of scientific illustration that differs radically from that of his precursors such as Buffon or Wilson. Audubon brings birds to life, showing them as family members in their natural habitat, in realistic poses, and dynamic interactions. Audubon aimed to catalogue the diversity of species and to document in minute detail the full range of birds in America (all too aware that his paintings would serve as documents of a vanishing wilderness.) However, it was not his art, but his science, that convinced Baron Cuvier to introduce Audubon at the French Academy of Sciences in 1828: “The greatest monument yet erected by Art to Nature,” said the Baron of the Birds of America. Audubon was elected a Fellow of the Royal Society of London in 1830, sharing that FRS with only one ante-bellum American, Benjamin Franklin. Audubon was also a great resource for Charles Darwin. It was after he attended an 1826 lecture by Audubon in Edinburgh (where Darwin was a medical student at the time) that Darwin began to pay close attention to Audubon’s work. Pigeons were of great interest to both “Believing that it is always best to study some special group. . . I have been permitted to join two of the London Pigeon Clubs,” wrote Darwin in The Origin of Species (1859). Indeed, among the references in that book Lamarck, Geoffroy St. Hilaire, and even Erasmus Darwin rate but a single mention apiece, while Audubon is quoted thrice, as often as Cuvier. The index of Darwin’s The Descent of Man and Selection in Relation to Sex, (1871) lists The Birds of America over two dozen times and Audubon and Bachman twice. It seems appropriate, therefore, that Audubon’s tombstone in upper Manhattan was paid for and erected by the New York Academy of Sciences rather than its National Academy of Design. (From the exhibition, “Whitman’s Pigeons,” curated by Ann Weissmann at the MBLWHOI Library, Woods Hole, MA, www.mblwhoilibrary.org)