



Cover: Newborn rat hippocampal neuron with neurites extended in culture. Purple colour indicates the localization of the $\alpha 7$ nicotinic receptor within the primary axon and growth cone. See article by J. C. Nordman and N. Kabbani (pp. 5502–5513).

Volume 125 (22) November 15, 2012

Cell Science at a Glance

- 5251 **Diversity in unconventional protein secretion.** Rabouille, C., Malhotra, V. and Nickel, W.

Cell Science in Context

- 5257 **Keratin intermediate filament proteins – novel regulators of inflammation and immunity in skin.** Hobbs, R. P., Lessard, J. C. and Coulombe, P. A.

Commentary

- 5259 **Life in the balance – a mechanistic view of the crosstalk between autophagy and apoptosis.** Rubinstein, A. D. and Kimchi, A.

Research Articles

- 5269 **Keratin 1 maintains skin integrity and participates in an inflammatory network in skin through interleukin-18.** Roth, W., Kumar, V., Beer, H.-D., Richter, M., Wohlenberg, C., Reuter, U., Thiering, S., Staratschek-Jox, A., Hofmann, A., Kreusch, F., Schultze, J. L., Vogl, T., Roth, J., Reichelt, J., Hausser, I. and Magin, T. M.

- 5280 **Unrepairable DNA double-strand breaks that are generated by ionising radiation determine the fate of normal human cells.** Noda, A., Hirai, Y., Hamasaki, K., Mitani, H., Nakamura, N. and Kodama, Y.

- 5288 **Upon Wnt stimulation, Rac1 activation requires Rac1 and Vav2 binding to p120-catenin.** Valls, G., Codina, M., Miller, R. K., Del Valle-Pérez, B., Vinyoles, M., Caelles, C., McCrear, P. D., de Herreros, A. G. and Duñach, M.

- 5302 **Mechanism and function of Vav1 localisation in TCR signalling.** Ksionda, O., Saveliev, A., Köchl, R., Rapley, J., Faroudi, M., Smith-Garvin, J. E., Wülfing, C., Rittinger, K., Carter, T. and Tybulewicz, V. L. J.

- 5315 **Microdomains of muscarinic acetylcholine and $\text{Ins}(1,4,5)\text{P}_3$ receptors create 'Ins(1,4,5) P_3 junctions' and sites of Ca^{2+} wave initiation in smooth muscle.** Olson, M. L., Sandison, M. E., Chalmers, S. and McCarron, J. G.

- 5329 **Foxk1 promotes cell proliferation and represses myogenic differentiation by regulating Foxo4 and Mef2.** Shi, X., Wallis, A. M., Gerard, R. D., Voelker, K. A., Grange, R. W., DePinho, R. A., Garry, M. G. and Garry, D. J.

- 5338 **Focal adhesion disassembly is regulated by a RIAM to MEK-1 pathway.** Coló, G. P., Hernández-Varas, P., Lock, J., Bartolomé, R. A., Arellano-Sánchez, N., Strömblad, S. and Teixidó, J.

- 5353 **Oscillation of APC/C activity during cell cycle arrest promotes centrosome amplification.** Prosser, S. L., Samant, M. D., Baxter, J. E., Morrison, C. G. and Fry, A. M.

- 5369 **Depletion of histone deacetylase 3 antagonizes PI3K-mediated overgrowth of *Drosophila* organs through the acetylation of histone H4 at lysine 16.** Lv, W.-W., Wei, H.-M., Wang, D.-L., Ni, J.-Q. and Sun, F.-L.

- 5379 **RAC1 in keratinocytes regulates crosstalk to immune cells by Arp2/3-dependent control of STAT1.** Pedersen, E., Wang, Z., Stanley, A., Peyrollier, K., Rösner, L. M., Werfel, T., Quondamatteo, F. and Brakebusch, C.

- 5391 **Acentrosomal spindle organization renders cancer cells dependent on the kinesin HSET.** Kleylein-Sohn, J., Pöllinger, B., Ohmer, M., Hofmann, F., Nigg, E. A., Hemmings, B. A. and Wartmann, M.

- 5403 **Division of the intermediate compartment at the onset of mitosis provides a mechanism for Golgi inheritance.** Marie, M., Dale, H. A., Kouprina, N. and Saraste, J.

- 5417 **The doublecortin-related gene *zfg-8* is a microtubule organizer in *Caenorhabditis elegans* neurons.** Bellanger, J.-M., Cueva, J. G., Baran, R., Tang, G., Goodman, M. B. and Debant, A.

- 5428 **Vimentin and the K-Ras-induced actin-binding protein control inositol-(1,4,5)-trisphosphate receptor redistribution during MDCK cell differentiation.** Dingli, F., Parys, J. B., Loew, D., Saule, S. and Mery, L.

- 5441 **Mutations in *Cog7* affect Golgi structure, meiotic cytokinesis and sperm development during *Drosophila* spermatogenesis.** Belloni, G., Sechi, S., Riparbelli, M. G., Fuller, M. T., Callaini, G. and Giansanti, M. G.

- 5453 **Inn1 and Cyk3 regulate chitin synthase during cytokinesis in budding yeasts.** Devrekanli, A., Foltman, M., Roncero, C., Sanchez-Diaz, A. and Labib, K.

- 5467 **CXCL12 receptor preference, signal transduction, biological response and the expression of 5T4 oncofoetal glycoprotein.** McGinn, O. J., Marinov, G., Sawan, S. and Stern, P. L.

- 5479 **Intracellular chloride channel protein CLIC1 regulates macrophage function through modulation of phagosomal acidification.** Jiang, L., Salao, K., Li, H., Rybicka, J. M., Yates, R. M., Luo, X. W., Shi, X. X., Kuffner, T., Tsai, V. W.-W., Husaini, Y., Wu, L., Brown, D. A., Grewal, T., Brown, L. J., Curmi, P. M. G. and Breit, S. N.

- 5489 **Single-cell analysis of Daxx and ATRX-dependent transcriptional repression.** Newhart, A., Rafalska-Metcalf, I. U., Yang, T., Negorev, D. G. and Janicki, S. M.

- 5502 **An interaction between $\alpha 7$ nicotinic receptors and a G-protein pathway complex regulates neurite growth in neural cells.** Nordman, J. C. and Kabbani, N.

- 5514 **The ATP permeability of pannexin 1 channels in a heterologous system and in mammalian taste cells is dispensable.** Romanov, R. A., Bystrova, M. F., Rogachevskaya, O. A., Sadovnikov, V. B., Shestopalov, V. I. and Kolesnikov, S. S.

- 5524 **The SNF2 family ATPase LSH promotes phosphorylation of H2AX and efficient repair of DNA double-strand breaks in mammalian cells.** Burrage, J., Termanis, A., Geissner, A., Myant, K., Gordon, K. and Stancheva, I.

- 5535 **Macrophages require Skap2 and Sirpa for integrin-stimulated cytoskeletal rearrangement.** Alenghat, F. J., Baca, Q. J., Rubin, N. T., Pao, L. I., Matozaki, T., Lowell, C. A., Golan, D. E., Neel, B. G. and Swanson, K. D.

- 5546 **Apical targeting and endocytosis of the sialomucin endolyn are essential for establishment of zebrafish pronephric kidney function.** Mo, D., Ihrke, G., Costa, S. A., Brill, L., Labilloy, A., Halfter, W., Cianciolo Cosentino, C., Hukriede, N. A. and Weisz, O. A.

- 5555 **Cyclin G is involved in meiotic recombination repair in *Drosophila melanogaster*.** Nagel, A. C., Fischer, P., Szawinski, J., La Rosa, M. K. and Preiss, A.

- 5564 **NO- β -catenin crosstalk modulates primitive streak formation prior to embryonic stem cell osteogenic differentiation.** Ding, H., Keller, K. C., Martinez, I. K. C., Geransar, R. M., zur Nieden, K. O., Nishikawa, S. G., Rancourt, D. E. and zur Nieden, N. I.

- 5578 **Mutant p53^{R273H} attenuates the expression of phase 2 detoxifying enzymes and promotes the survival of cells with high levels of reactive oxygen species.** Kalo, E., Kogan-Sakin, I., Solomon, H., Bar-Nathan, E., Shay, M., Shetzer, Y., Dekel, E., Goldfinger, N., Buganim, Y., Stambolsky, P., Goldstein, I., Madar, S. and Rotter, V.

Erratum

- 5587 **Filopodium retraction is controlled by adhesion to its tip.** Romero, S., Quatela, A., Bornschlög, T., Guadagnini, S., Bassereau, P. and Tran Van Nhieu, G.