

Publications Reimer Stick

Stick, R. and Peter, A. (2022). CaaX-less lamins: Lophotrochozoa provide a glance at the playground of evolution. *Protoplasma* <https://doi.org/10.1007/s00709-022-01809-3>

Stick, R. and Peter, A. (2019). Evolution of the lamin protein family at the base of the vertebrate lineage. *Cell Tiss. Res.* Published online: 13 Dec 2019 <https://doi.org/10.1007/s00441-019-03156-x>

Apte, K., Stick, R., and Radmacher, M. (2017). Mechanics in human fibroblasts and progeria: lamin A mutation E145K results in stiffening of nuclei. *J. Mol Reconition*. doi: 10.1002/jmr.2580

Peter, A., Khandekar, S., Deakin, JE, Stick, R. (2015). A peculiar lamin in a peculiar mammal: Expression of lamin LII in platypus (*Ornithorhynchus anatinus*). *Eur. J. Cell. Biol.*

Peter, A., and Stick R. (2015). Evolutionary aspects in intermediate filament proteins. *Curr. Opin. Cell Biol.* 32, 48- 55.

Schilf, P., Peter, A., Hurek, T., and Stick, R. (2014). Lamins of the sea lamprey (*Petromyzon marinus*) and the evolution of the vertebrate lamin protein family. *Eur. J. Cell Biol.* 93, 308-321.

Batsios, P., Peter, T., Baumann, O., Stick, R., Meyer, I., and Gräf, R. (2012). A lamin in lower eukaryotes? *Nucleus* 3, 237-243.

Peter, A., and Stick, R. (2012). Evolution of the lamin protein family: What introns can tell. *Nucleus* 3, 44-59.

Krüger, A., Batsios, P., Baumann, O., Luckert, E., Schwarz, H., Stick, R., Meyer, I., and Gräf, R. (2012). Characterization of NE81, the first lamin-like nucleoskeleton protein in a unicellular organism. *Mol. Biol. Cell.* 23, 360-370.

Grossman, E., Dahan, I., Stick, R., Goldberg M.W., Gruenbaum Y., and Medalia, O. (2012). Filaments assembly of ectopically expressed *Caenorhabditis elegans* lamin within *Xenopus* oocytes. *J. Struct. Biol.* 117, 113-118.

Kaufmann, A., Heinemann, F., Radmacher, M., and Stick R. (2011). Amphibian oocyte nuclei expressing lamin A with the progeria mutation E145K exhibit an increased elastic modulus. *Nucleus* 2, 310-319.

Linde, N., and Stick, R. (2010). Intranuclear membranes induced by lipidated proteins are derived from the nuclear envelope. *Nucleus* 1, 343-353.

Stick, R., and Goldberg, M.W. (2010). Oocytes as an experimental system to analyze the

ultrastructure of endogenous and ectopically expressed nuclear envelope components by field-emission scanning electron microscopy. Methods 51, 170-176.

von Moeller, F., Barendziak, T., Apte, K., Goldberg, M.W., and Stick, R. (2010). Molecular characterization of *Xenopus* lamin LIV reveals differences in the lamin composition of sperms in amphibians and mammals. Nucleus 1, 85-95.

Schäpe, J., Praußé, S., Radmacher, M., and Stick, R. (2009). Influence of lamin A on the mechanical properties of amphibian oocyte nuclei measured by AFM. Biophys. J. 96, 4319-4325.

Goldberg, M.W., Fiserova, J., Huttenlauch, I., and Stick, R. (2008). A new model for nuclear lamina organization. Biochem. Soc. Trans. 36, 1339-1343.

Peter, A., and Stick, R. (2008). Ectopic expression of prelamin A in early *Xenopus* embryos induces apoptosis. Eur. J. Cell Biol. 87, 879-891.

Goldberg, M.W., Huttenlauch, I., Hutchison, C.J., and Stick, R. (2008). Filaments made from A- and B-type lamins

differ in structure and organization. J. Cell Sci. 121, 215-225. Alberio, R., Johnson, A.D., Stick, R., and Campbell, K.H.S. (2005). Differential nuclear remodeling of mammalian

somatic cells by *Xenopus laevis* oocyte and egg cytoplasm. Exp. Cell Res. 307, 131-141. Stick, R. (2005) Nuclear lamins in oogenesis and early development of amphibians. In: Zellbiologie aktuell,

Mitteilungen der DGZ. 31, 26-28.

Ralle, T., Grund, C., Franke, W.W., and Stick, R. (2004). Intranuclear membrane structure formations by CaaX- containing nuclear proteins. J. Cell Sci. 117, 6095-6104.

Zimek, A., Stick, R., and Weber, K. (2003). Genes coding for intermediate filaments proteins: common features and unexpected differences in the genomes of humans and the teleost fish *Fugu rubripes*. J. Cell Sci. 116, 2295-2302.

Huttenlauch, I., and Stick, R. (2003). Occurrence of articulins and epiplasmins in protists. J. Eukaryot. Microbiol. 50, 15-18.

Ossipova, O., Stick, R., and Pieler, T. (2002). XSPR-1 and XSPR-2, novel Sp1 related zinc finger containing genes, are dynamically expressed during *Xenopus* embryogenesis. Mech. Dev. 115, 117-122.

Hofemeister, H., Kuhn, C., Franke, W.W., Weber, K., and Stick, R. (2002). Conservation of the gene structure and membrane-targeting signals of germ cell-specific lamin LIII in

amphibians and fish. Eur. J. Cell Biol. 81, 51-60.

Lopez-Soler, R.I., Moir, R.D., Spann, T.P., Stick, .R., and Goldmann, R.D. (2001). A role for nuclear lamins in nuclear envelope assembly. J. Cell Biol. 154, 61-70.

Hofemeister, H., Weber, K., and Stick, R. (2000). Association of prenylated proteins with the plasma membrane and the inner nuclear membrane is mediated by the same membrane targeting motifs; membrane targeting of *Xenopus* lamin B3. Mol. Biol. Cell 11, 3233-3246.

Ralle, T., and Stick, R. (1999). Translational regulation in oocytes and eggs of *Xenopus laevis* : repression, activation, and polyadenylation. Proceedings of the Greek-German Workshop on Molecular Aspects of Biotechnology.

Erber, A., Riemer, D., Hofemeister, H., Bovenschulte, M., Stick, R., Panopoulou, G., Lehrach, H., and Weber, K. (1999). Characterisation of the *Hydra* lamin and its gene; a molecular phylogeny of metazoan lamins. J. Mol. Evol. 49, 260-271.

Ralle, T., Gremmels, D., and Stick, R. (1999). Translational control of nuclear lamin B1 mRNA during oogenesis and early development of *Xenopus* . Mechn. Dev. 84, 89-101.

Kohlhase, J., Köhler, A., Jäckle, H., Engel, W., and Stick, R. (1999). Molecular cloning of a *SALL1* -related pseudogene and mapping to chromosome Xp11.2. Cytogenet. Cell Genet. 84, 31-34.

Huttenlauch, I., Peck, R.K., and Stick, R. (1998). Articulins and epiplasmins: two distinct classes of cytoskeletal proteins of the membrane skeleton in protists. J. Cell Sci. 111, 3367-3378.

Huttenlauch, I., Peck, R.K., Plessmann, U., Weber, K., and Stick, R. (1998). Characterisation of two articulins, the major epiplasmic proteins comprising the membrane skeleton of the ciliate *Pseudomicrorthorax* . J. Cell Sci. 111, 1909-1919.

Köster, R., Stick, R., Loosli, F., and Wittbrodt, J. (1997). Medaka *spalt* acts as a target gene of *hedgehog* signaling. Development 124, 3147-3156.

Spann, T.P., Moir, R.D., Goldman, A.E., Stick, R., and Goldman, R.D. (1997). Disruption of nuclear lamin organization

alters the distribution of replication factors and inhibits DNA synthesis. J. Cell Biol. 136, 1201-1212.

Kohlhase, J., Schuh, R., Dowe, G., Kühlein, R.P., Jäckle, H., Schroeder, B., Schulz-Schaeffer, W., Kretzschmar, H. A., Köhler, A., Müller, U., Raab-Vetter, M., Burkhardt, E.,

Engel, W., and Stick, R. (1996). Isolation, characterization and organ-specific expression of two novel human zinc finger genes related to *spalt* of *Drosophila*. *Genomics* 38, 291-298.

Hollemann, T., Bellefroid, E., Stick, R., and Pieler, T. (1996). Zinc finger proteins in *Xenopus* development. *Int. J. Dev. Biol.* 40, 291-295.

Rudt, F., Firmbach-Kraft, I., Petersen, M., Pieler, T., and Stick, R. (1996). Nucleoskeleton and nucleo-cytoplasmic transport in oocytes and early development of *Xenopus laevis*. *Int. J. Dev. Biol.* 40, 273-278.

Hollemann, T., Schuh, R., Pieler, T., and Stick, R. (1996). *Xenopus Xsal-1*, a vertebrate homolog of the region specific homeotic gene *spalt* of *Drosophila*. *Mechn. Dev.* 55, 19-32.

Huttenlauch, I., Geisler, N., Plessmann, U., Peck, R.K., Weber, K., and Stick, R. (1995). The major epiplasmic proteins of ciliates are articulins. Cloning, recombinant expression, and structural characterization. *J. Cell Biol.* 130, 1401-1412.

Review: Stick, R. (1995). Nuclear lamins and the nucleoskeleton. In: *The cytoskeleton: I Structure and assembly*. Eds.: J.E. Hesketh and I.F. Pryme. (Greenwich JAI Press), 257-296.

Firmbach-Kraft, I., and Stick, R. (1995). Analysis of nuclear lamin isoprenylation in *Xenopus* oocytes: isoprenylation of lamin B3 precedes its uptake into the nucleus. *J. Cell Biol.* 129, 14-24.

Stick, R. (1994). The gene structure of B-type nuclear lamins of *Xenopus laevis*: implications for the evolution of the vertebrate lamin family. *Chromosome Research* 2, 261-267.

Firmbach-Kraft, I., and Stick, R. (1993). The role of CaaX dependent modifications in membrane association of *Xenopus* nuclear lamin B3 during meiosis and the fate of B3 in transfected mitotic cells. *J. Cell Biol.* 123, 1661-1670.

Jenkins, H., Lyon, C., Lane, B., Hollemann, T., Stick, R., and Hutchinson, C. (1993). Nuclei which lack a lamina accumulate karyophilic proteins and assemble a nuclear matrix. *J. Cell Sci.* 106, 275-285.

Stick, R. (1992). The gene structure of *Xenopus* nuclear lamin A: A model for the evolution of A-type from B-type lamins by exon shuffling. *Chromosoma* 101, 61-74.

Meier, J., Campbell, K.H.S., Ford, C.C., Stick, R., and Hutchinson, C.J. (1991). The role of lamin LIII in nuclear assembly and DNA replication in cell free extracts of *Xenopus* eggs. *J.*

Cell Sci. 98, 271-279.

Döring, V., and Stick, R. (1990). Gene structure of the nuclear lamin LIII of *Xenopus laevis*; a model for the evolution of IF proteins from a lamin-like ancestor. EMBO J., 9, 4073-4081.

Stick, R. (1988). cDNA-cloning of the developmentally regulated lamin LIII of *Xenopus laevis*. EMBO J., 7, 3189-3197.

Stick, R., Angres, B., Lehner, C.F., and Nigg, E.A. (1988). The fates of chicken nuclear lamin proteins during mitosis: Evidence for a reversible redistribution of lamin B2 between inner nuclear membrane and elements of the endoplasmic reticulum. J. Cell Biol. 107, 397-406.

Review: Stick, R. (1987). Dynamics of the nuclear lamina during mitosis and meiosis. In: Molecular Regulation of Nuclear Events in Mitosis and Meiosis. Eds.: R.A. Schlegel, M.S. Halleck, and P.N. Rao. (New York: Academic Press), 43-66.

Lehner, C.F., Stick, R., Eppenberger, H.M., and Nigg, E.A. (1987). Differential expression of nuclear lamin proteins during chicken development. J. Cell Biol. 105, 577-587.

Dreyer, C., Stick, R., and Hausen, P. (1985). Uptake of oocyte nuclear proteins by nuclei of *Xenopus* embryos. In: Proceedings of the Workshop on Nucleo-cytoplasmic Transport. Eds.: R. Peters and M. Trendelenburg, Heidelberg 1985.

Hausen, P., Wang Ya Hui, Dreyer, C., and Stick, R. (1985). Distribution of nuclear proteins during maturation of the *Xenopus* oocyte. J. Embryol. Exp. Morph. 89, Supplement, 17-34.

Stick, R., and Hausen, P. (1985). Changes in the nuclear lamina composition during early development of *Xenopus laevis*. Cell 41, 191-200.

Benavente, R., Krohne, G., Stick, R., and Franke, W.W. (1984). Electron microscopic immunolocalization of a karyoskeletal protein of molecular weight 145000 in nucleoli and perinucleolar bodies of *Xenopus laevis*. Exp. Cell Res. 151, 224-235.

Stick, R., and Schwarz, H. (1983). Disappearance and reformation of the nuclear lamina structure during specific stages of meiosis in oocytes. Cell 33, 949-958.

Krohne, G., Stick, R., Kleinschmidt, J.A., Moll, R., Franke, W.W., and Hausen, P. (1982). Immunological localization of a major karyoskeletal protein in nucleoli of oocytes and somatic cells of *Xenopus laevis*. J. Cell Biol. 94, 749-754.

Krohne, G., Stick, R., Hausen, P., Kleinschmidt, J.A., Dabauvalle, M.-C., and Franke, W.W.

(1982). The major karyoskeletal proteins of oocytes and erythrocytes of *Xenopus laevis*. In: The Nuclear Envelope and the Nuclear Matrix. (New York: Alan R. Riss, Inc.), pp.135-144.

Stick, R., and Schwarz, H. (1982). The disappearance of the nuclear lamina during spermatogenesis: an electron microscopic and immunofluorescence study. Cell Differentiation 11, 235-243.

Stick, R., and Krohne, G. (1982). Immunological localization of a major architectural protein associated with the nuclear envelope of the *Xenopus laevis* oocyte. Exp. Cell Res. 138, 319-330.

Stick, R. and Hausen, P. (1980). Immunological analysis of nuclear lamina proteins. Chromosoma 80, 219-236.