

**Eva Bártová**

Born 16.1.1968 in Kaplice, Czech Republic

Born as Eva Musilová

Affiliation: Institute of Biophysics, Academy of Sciences of the Czech Republic, Královopolská 135, CZ-61265 Brno, Czech Republic; tel.: 420-5-41517141; fax: 420-5-41240798; e-mail: bartova@ibp.cz; URL: <http://www.ibp.cz/cs/oddeleni/molekularni-cytologie-a-cytometrie/skupina-struktury-a-funkce-bunecneho-jadra/>

Educational training:

1991; graduated in Experimental Biology, Faculty of Sciences, Masaryk University Brno.

Employment:

1992-1995: Ph.D. study: Department of Animal Physiology, Faculty of Sciences, Masaryk University Brno. The experimental part of Ph.D. study: Institute of Biophysics, Academy of Sciences of the Czech Republic, Brno, Laboratory of Cytokinetics and Flow-cytometry.

1995-1997: Faculty of Medicine, Department of Pathophysiology, Masaryk University Brno.

1997-present: Laboratory of Molecular Cytology and Cytometry, Institute of Biophysics of the Czech Academy of Sciences, Brno, Czech Republic.

2015-present: a part-time job at Institute of Cellular Biology and Pathology, 1st Faculty of Medicine, Charles University in Prague, Czech Republic.

2016-present: Department leader: Department of Molecular Cytology and Cytometry. Institute of Biophysics of the Czech Academy of Sciences.

2017: Director of the Institute of Biophysics of the Czech Academy of Sciences.

Qualification:

1991: RNDr. Experimental Biology, Faculty of Sciences, Masaryk University Brno.

1995: Ph.D. Animal Physiology, thesis: "Changes in the metabolism of unsaturated fatty acids and their relationship to the proliferation and differentiation of the human leukemic cell line HL-60 in the conditions of cytokine TGF-beta 1 treatment."

2010: Assoc. Prof. in Molecular Biology and Genetics, Masaryk University Brno, Czech Republic

Research topics: Cell differentiation. Higher-order chromatin structure of the human and mouse genome. Epigenetics; studies related to changes in histone signature in various experimental models. Epigenetics of human and mouse embryonic stem cells (ESCs), epigenetics of the mouse brain.

Methodology in the laboratory: Flow cytometry, fluorescence in situ hybridization (DNA-FISH and RNA-FISH) and different modifications of this technique. PCR and RT-PCR, immunohistochemistry, ChIP-PCR technique, ChIP on chip analysis, MeDIP, confocal microscopy, FRAP, AB-FRET, FLIM-FRET, local induction of DNA lesions by micro-irradiation, western blots, living cell studies by fluorescence protein technology, cultivation of human and mouse embryonic stem cells and their differentiation.

Memberships: 1) European Cytogeneticists Association (E.C.A); 2) Czech Biological Society; 3) Member of Advisory Board of Faculty of Medicine, Masaryk University, Brno; 4) a member of the Czech Microscopy Society; 5) a member of the World Journal of Stem Cells Editorial board, Number ID: 02446126.

Experiences on foreign laboratories: Short-time visits of Prof. Christoph Cremer Laboratory, Kirchhoff-Institute of Physics, University of Heidelberg, Im Neuenheimer Feld 227, D-69120 Heidelberg, Germany and Prof. Roel van Driel Laboratory in Swammerdam Inst for Life Sciences, BioCentrum Amsterdam, University of Amsterdam, Kruislaan 318, 1098 SM Amsterdam, the Netherlands. Eva Bártová (EB) was also a member of 3D genome project supported by EU (LSHG-CT-2003-503441) govern by Prof. Roel van Driel. EB was a member of EU COST project Epigenetics

from Bench to Bedside TD09/05 and a new EU COST action, Epigenetic Chemical Biology (EPICHEM), CM1406.

National projects:

- Grant Agency of Czech Republic (GAČR), grant number: 202/98/P253, 1998-2000. Changes in the structure of interphase chromatin in human leukemia cells induced to differentiation. (principal investigator).
- Grant Agency of Academy of Science (GA AV), grant number: B5004102, 2001-2003. Nuclear topography of selected proto-oncogenes in human neutrophil granulocytes and leukaemia cells (principal investigator).
- Grant Agency of Czech Republic (GAČR), grant number: 204/06/0978, 2006-2008. Changes in post-translational histone modifications after the cell treatment by HDAC inhibitors and after the induction of cell differentiation (principal investigator).
- Ministry of Education Youth and Sports (MŠMT), grant number: LC535, 2005-2011. Center of chromosome research (project member).
- Ministry of Education Youth and Sports (MŠMT), grant number: ME 919, 2007-2011, Mapping of fragile sites in the human genome (principal investigator).
- Ministry of Education Youth and Sports (MŠMT), grant number: LC06027, 2006-2011. Center of basic research on monoclonal gammopathy and multiple myeloma (principal co-investigator).
- Ministry of Education Youth and Sports (MŠMT), grant number COST-CZ, LD11020, 2011-2013. Epigenetics of normal and tumor cells (principal investigator).
- Grant Agency of Czech Republic (GAČR), grant number: 13-07822S, 2013-2017. The role of epigenetic processes in DNA repair (principal investigator).

International projects:

- EU project, grant number: LSHG-CT-2003-503441, 2004-2007, 3D genome, govern by Prof. Roel van Driel (project member)
- EU, COST, grant number: TD09/05, 2009-2012. Epigenetics from Bench to Bedside (managing committee member as a representative of the Czech Republic).
- EU, Marie Curie project PIRSES-GA-2010-269156-LCS. 2011-2014. Study of protein dynamics in living cells after DNA damage (principal investigator)
- The Czech-Norwegian Research Program CZ09, project title: Nuclear architecture in the regulation of autophagy, DNA repair and gene expression (NuArch) No.: 7F14369 (principal investigator).
- The Czech-Norwegian Research Program CZ09, project title: Czech-Norwegian networking (CzeNoNet) No.: 7F16012 (principal investigator).
- EU, COST, grant: MC1406, 20015-2017. Epigenetic Chemical Biology (EPICHEM). (managing committee member as a representative of the Czech Republic)

Students (Bc, MS, Ph.D.) educated in the laboratory of Eva Bártoová:

Andrea Harničarová-Horáková, Gabriela Galiová-Šustáčková, Soňa Legartová, Petra Sehnalová, Jana Suchánková, Michal Franek, Alena Kovaříková, Barbora Malýšková, Alžběta Jugová, Daniel Depeš, Martina Nemčková, Terézie Přikrylová, Tereza Hrušková, Kateřina Buchničková, Markéta Hájková, Radka Uhlířová, Veronika Foltánková, Petra Lesáková, Iveta Vavříková.

Defended thesis:

Bc: 12

MSc: 8

Ph.D. 3

Invited lectures and selected talks:

Invited speaker of Players of the Epigenetics Symphony, July 2012, Poitiers. FEBS meeting St. Petersburg, July 2013; EU COST meeting Riga 2012, COST meeting in Budapest 2015; COST meeting Groningen 2016, Symposium on Functional Organization of the Cell Nucleus, Prague 2011-2015; Meeting on Chromatin Structure and Function, Moscow and Novosibirsk, March 2014; Croatia Microscopy meeting, Zadar, April 2015; Wilhelm Bernhard Workshop, Vienna, August 2015. Invited speaker at International min-conference, Chromosomes and Mitosis, Novosibirsk, December 2015. 4D Nucleome Krakow, 2017.

Meeting organization:

Meeting on Chromatin Structure and Function, Moscow and Novosibirsk, March 2014. 12th International Congress of Cell Biology, Prague, July 2016. Local meetings: workshop of OPVK project (organized in Brno 2013) and meetings in a frame of Strategy of the Academy of the Sciences of CR, 2015-2017.

Teaching activities and co-operation with Universities:

Lectures on Molecular Physiology of the Genome, Analytical Cytometry and Microscopy Techniques at the Faculty of Sciences, Masaryk University Brno. Co-operation with the Department of Cellular Biology and Pathology, 1st Faculty of Medicine, Charles University in Prague and with CBIA, Faculty of Informatics, MU, Brno.

h-index: 25

Number of citations according to the Research Gate: ~ 2051

List of selected publications:

1. Hofmanová J., Musilová E., Kozubík A. (1996). Suppression of human cancer cell proliferation by lipoxigenase inhibitors and gamma-radiation in vitro. *Gen. Physiol. Biophys.* 15, 317-331. IF=0.69
2. Kozubík A., Hofmanová J., Dušek L., Musilová E. (1997) 5-lipoxigenase inhibitors potentiate effects of TGF-beta 1 on the differentiation of human leukemia HL-60 cells. *J. Leuk. Biol.*, 62, 240-248. IF=4.22
3. Bártová E., Španová A., Janáková L., Bobková M., Rittich B. (1997) Apoptotic damage of DNA in human leukaemic HL-60 cells treated with C2-ceramide was detected after G1 blockade of the cell cycle. *Physiol. Res.*, 46, 155-160. IF=1.14*
4. Kozubek M., Kozubek S., Lukášová E., Marečková A., Bártová E., Skalníková M., Jergová A. (1999) High-resolution cytometry: Automated 2-D and 3-D analysis of hybridization dots in interphase cell nuclei using multi-color FISH and CCD microscopy. *Cytometry*, 36, 279-293. IF=2.7
5. Lukášová E., Kozubek S., Kozubek M., Kroha V., Marečková A., Skalníková M., Bártová E., Šlotová J. (1999) Chromosomes participating in translocations typical of malignant haemoblastosis are also involved in exchange aberrations induced by fast neutrons. *Radiat. Res.*, 151, 375-384. IF=3.23
6. Kozubek S., Lukášová E., Marečková A., Skalníková M., Kozubek M., Bártová E., Kroha V., Krahulcová E., Šlotová J. (1999) The topological organization of chromosomes 9 and 22 in cell nuclei

has a determinative role in the induction of t(9;22) translocations and in the pathogenesis of t(9;22) leukemias. *Chromosoma*, 108, 426-435. IF=2.71

7. Bártová E., Kozubek S., Kozubek M., Jirsová P., Lukášová E., Skalníková M., Buchničková K. (2000) The influence of the cell cycle, differentiation and irradiation on the nuclear location of the abl, bcr and c-myc genes in human leukemic cells. *Leukemia Research*, 24, 233-241. IF=1.5*

8. Bártová E., Kozubek S., Kozubek M., Jirsová P., Lukášová E., Skalníková M., Cafourková A., Koutná I. (2000) Nuclear topography of the c-myc gene in human leukemic cells. *Gene*, 244, 1-11. IF=2.5*

9. Koutná I., Kozubek S., Žaloudík J., Kozubek M., Lukášová E., Matula P., Bártová E., Skalníková M., Cafourková A., Jirsová P. (2000) Topography of genetic loci in tissue samples: towards new diagnostic tool using interphase FISH and high-resolution image analysis techniques. *Anal. Cell. Pathol.* 20: (4) 173-185. IF=0.84

10. Skalníková M., Kozubek S., Lukášová E., Bártová E., Jirsová P., Cafourková A., Koutná I., Kozubek M. (2000) Spatial arrangement of genes, centromeres and chromosomes in human blood cell nuclei and its changes during the cell cycle, differentiation and after irradiation. *Chromosome Res.* 8: (6) 487-499. IF=1.73

11. Cafourková A., Lukášová E., Kozubek S., Kozubek M., Govorun R.D., Koutná I., Bártová E., Skalníková M., Jirsová P., Paseková R., Krasavin E.A. (2001) Exchange aberrations among 11 chromosomes of human lymphocytes induced by gamma-rays. *Int. J. Radiat. Biol.* 77: (4) 419-429. IF=2.36

12. Jirsová P., Kozubek S., Bártová E., Kozubek M., Lukášová E., Cafourková A., Koutná I., Skalníková M. (2001) Spatial distribution of selected genetic loci in nuclei of human leukemia cells after irradiation. *Radiat. Res.* 155: (2) 311-319. IF=2.45

13. Bártová E., Kozubek S., Jirsová P., Kozubek M., Lukášová E., Skalníková M., Cafourková A., Koutná I., Paseková R. (2001) Higher-order chromatin structure of human granulocytes. *Chromosoma* 110: 360-370. IF=3.29*

14. Kozubek M., Kozubek S., Lukášová E., Bártová E., Skalníková M., Matula P., Matula P., Jirsová P., Cafourková A., Koutná I. (2001) Combined confocal and wide-field high-resolution cytometry of fluorescent in situ hybridization-stained cells. *Cytometry* 45(1):1-12. IF=2.22

15. Bártová E., Kozubek S., Jirsová P., Kozubek M., Gajová H., Lukášová E., Skalníková M., Gaňová A., Koutná I., Hausmann M. (2002) Nuclear structure and gene activity in human differentiated cells. *J. Struct. Biol.* 139: 76-89. IF=4.2*

16. Kozubek S., Lukášová E., Jirsová P., Koutná I., Kozubek M., Gaňová A., Bártová E., Falk M., Paseková R. (2002) 3D structure of the human genome: order in randomness. *Chromosoma* 111: 321-331. IF=2.83

17. Taslerová R., Kozubek S., Lukášová E., Jirsová P., Bártová E., Kozubek M. (2002) Arrangement of chromosome 11 and 22 territories, EWSR1 and FLI1 genes, and other genetic elements of these chromosomes in human lymphocytes and Ewing sarcoma cells. *Hum. Genet.* 112(2):143-55. IF=3.43

18. Kozubek M., Skalníková M., Matula P., Bártová E., Rauch J., Neuhaus F., Eipel H., Hausmann M. (2002) Automated microaxial tomography of cell nuclei after specific labelling by fluorescence in situ hybridisation. *Micron* 33(7-8): 655-65. IF=1.54

19. Bártová E., Kozubek S., Gajová H., Jirsová P., Žlúvová J., Taslerová R., Koutná I., Kozubek M. (2003) Cytogenetics and cytology of retinoblastomas. *J. Cancer Res. Clin. Oncol.* 129(2):89-99. IF=2.16*

20. Bártová E., Jirsová P., Fojtová M., Souček K., Kozubek S. (2003) Chromosomal territory segmentation in apoptotic cells. *Cell Mol Life Sci.* 60(5): 979-990. IF=4.99*

21. Galiová G., Bártová E., Kozubek S. (2004) Nuclear topography of beta-like globin gene cluster in IL-3-stimulated human leukemic K-562 cells. *Blood Cells Mol. Dis.* 33, 4-14. IF=2.55*

22. Bártová E., Harničarová A., Pacherník J., Kozubek S. (2005) Nuclear topography and expression of the BCR/ABL fusion gene and its protein level influenced by cell differentiation and RNA interference. *Leuk Res.* 29, 901-913. IF=2.24*
23. Bártová E., Pacherník J., Harničarová A., Kovařík A., Kovaříková M., Hofmanová J., Skalníková M., Kozubek M., Kozubek S. (2005) Nuclear levels and patterns of histone H3 modifications and HP1 proteins after inhibition of histone deacetylases. *J. Cell Sci.* 118 (21), 5035-5046. IF= 6.91*
24. Bártová E., Kozubek S. (2006) Nuclear architecture in the light of gene expression and cell differentiation studies. *Biol Cell.* 98(6):323-36. Review. IF= 4.3*
25. Taslerová R., Kozubek S., Bártová E., Gajdušková P., Kodet R., Kozubek M. (2006) Localization of genetic elements of intact and derivative chromosome 11 and 22 territories in nuclei of Ewing sarcoma cells. *J. Struct. Biol.* 155(3):493-504. IF= 3.49
26. Harničarová A., Kozubek S., Pacherník J., Krejčí J., Bártová E. (2006) Distinct nuclear arrangement of active and inactive c-myc genes in control and differentiated colon carcinoma cells. *Exp Cell Res.* 312(20):4019-35. IF=3.77*
27. Skalníková M., Bártová E., Ulman V., Matula P., Svoboda D., Harničarová A., Kozubek M., Kozubek S. (2007) Distinct patterns of histone methylation and acetylation in human interphase nuclei. *Physiol Res.* 56(6):797-806. IF= 2.09*
28. Bártová E., Pacherník J., Kozubek A., Kozubek S. (2007) Differentiation-specific association of HP1alpha and HP1beta with chromocentres is correlated with clustering of TIF1beta at these sites. *Histochem Cell Biol.* 127(4):375-88. IF= 3.22*
29. Fojtova M., Piskala A., Votruba I., Otmar M., Bártová E., Kovařík A. (2007) Efficacy of DNA hypomethylating capacities of 5-aza-2'-deoxycytidine and its alpha anomer. *Pharmacol. Res.* 55(1):16-22. IF= 2.42
30. Koutná I., Krontorád P., Svoboda Z., Bártová E., Kozubek M., Kozubek S. (2007) New insights into gene positional clustering and its properties supported by large-scale analysis of various differentiation pathways. *Genomics* 89(1):81-8. IF= 3.56
31. Kroupová J., Bártová E., Fojt L., Strašák L., Kozubek S., Vetterl V. (2007) Low-frequency magnetic field effect on cytoskeleton and chromatin. *Bioelectrochemistry* 70(1):96-100. IF= 1.88*
32. Bártová E., Krejčí J., Harničarová A., Kozubek S. (2008) Differentiation of human embryonic stem cells induces condensation of chromosome territories and formation of heterochromatin protein 1 foci. *Differentiation.* 76(1):24-32. IF= 3.75*
33. Bártová E., Harničarová A., Krejčí J., Strašák L. and Kozubek S. (2008) Single-cell c-myc gene expression in relationship to nuclear domains, accepted for publication in *Chromosome Research*, 6(2):325-43. IF=3.41*
34. Gabriela Galiová, Eva Bártová, Ivan Raška, Jana Krejčí and Stanislav Kozubek. (2008) Chromatin changes induced by lamin A/C deficiency and the HDAC inhibitor TSA. *European Journal of Cell Biology*, 87(5):291-303. IF=3.96*
35. Bártová E, Krejčí J, Harničarová A, Galiová G, Kozubek S. (2008) Histone Modifications and Nuclear Architecture: A Review. *J Histochem Cytochem.* 56(8):711-21. IF=2.82*
36. Krejčí J, Harničarová A, Kůřová J, Uhlířová R, Kozubek S, Legartová S, Hájek R, Bártová E. (2008) Nuclear organization of PML bodies in leukaemic and multiple myeloma cells. *Leuk. Res.*, 32(12):1866-77. IF=2.39*
37. Bártová E, Galiová G, Krejčí J, Harničarová A, Strašák L, and Kozubek S. (2008) Epigenome and chromatin structure in human embryonic stem cells undergoing differentiation. *Developmental Dynamics.* 237(12):3690-702. IF=3.02*

38. Bártová E., Krejčí J., Hájek R., Harničarová A., Kozubek S. (2008) Chromatin Structure and Epigenetics of Tumour Cells: a Review. *Cardiovascular and Haematological Disorders - Drug target*, Mar;9(1):51-61. Review. IF=0*
39. Krejčí J., Uhlířová R., Galiová G., Kozubek S., Smogová J, Bártová E. (2009) Genome-wide reduction in H3K9 acetylation during human embryonic stem cell differentiation. *Journal of Cellular Physiology*, 219(3):677-87. IF=4.58.
40. Strašák L., Bártová E., Harničarová A., Galiová G., Krejčí J. and Kozubek S. (2009) H3K9 acetylation influences radial chromatin positioning. *Journal of Cellular Physiology*, 220(1):91-101. IF=4.58*
41. Strašák L, Bártová E, Krejčí J, Fojt L, Vetterl V. (2009) Effects of ELF-EMF on brain proteins in mice. *Electromagn Biol Med*. 2009;28(1):96-104. IF=0.73
42. Epigenetics of multiple myeloma after treatment with cytostatics and gamma radiation. Krejčí J, Harničarová A, Štreitová D, Hájek R, Pour L, Kozubek S, Bártová E (2009) *Leuk Res*. 33(11):1490-8. IF=2.36*
43. Legartová S, Krejčí J, Harničarová A, Hájek R, Kozubek S, Bártová E. Nuclear topography of the 1q21 genomic region and Mcl-1 protein levels associated with pathophysiology of multiple myeloma. *Neoplasma*. 2009;56(5):404-13. IF=1.19*
44. Harničarová-Horáková A, Galiová G, Soňa L, Kozubek S, Matula P, Bártová E. (2010) Chromocentre integrity and epigenetic marks. *J Struct Biol*. 169(1):124-33. IF=3.50*
45. Uhlířová R, Harničarová Horáková A, Galiová G, Legartová S, Matula P, Fojtová M, Vařecha M, Amrichová J, Vondráček J, Kozubek S, Bártová E. (2010) SUV39h- and A-type Lamin-Dependent Telomere Nuclear Rearrangement. *J. Cellular Biochemistry*, 109(5):915-26. IF=3.12*
46. Harničarová Horáková A., Bártová E., Galiová G., Uhlířová R., Matula P., Kozubek S. (2010) SUV39h-independent association of HP1 β with fibrillar-in-positive nucleolar region. *Chromosoma*, 119(3):227-41. IF=4.20*
47. Bártová E., Harničarová Horáková A., Uhlířová R., Raška I, Galiová G, Orlova D, Kozubek S. (2010) Structure and epigenetics of nucleoli in comparison with non-nucleolar compartments, *J. Histochemistry & Cytochemistry*, 58(5):391-403. IF=2.38*
48. Harničarová Horáková A, Bártová E, Kozubek S. (2010) Chromatin structure with respect to histone signature changes during cell differentiation. *Cell Struct Funct*. 35(1):31-44. Epub 2010 Apr 15. Review. IF=3.27*
49. Legartova S, Harnicarova-Horakova A, Bartova E, Hajek R, Pour L, Kozubek S. (2010) Expression of RAN, ZHX-2, and CHC1L genes in multiple myeloma patients and in myeloma cell lines treated with HDAC and Dnmts inhibitors. *Neoplasma* 57(5):482-7. IF=1.45*
50. Eva Bártová, Gabriela Galiová, Soňa Legartová, Lenka Stixová, Alžběta Jugová, Stanislav Kozubek. (2010) Genome instability in the context of chromatin structure and fragile sites. *Critical Reviews in Eukaryotic Gene expression*, 20(3):181-94. IF=4.11*
51. Bártová E, Stixová L, Galiová G, Horáková AH, Legartová S, Kozubek S. (2011) Mutant genetic background affects functional re-arrangement and kinetic properties of JMJD2B histone demethylase. *J. Mol. Biol*. 405(3):679-95. IF=4.01*
52. Darya Yu. Orlova, Eva Bártová , Valeri P. Maltsev, Stanislav Kozubek (2011) A non-fitting method employing a spatial sine window transform for inhomogeneous effective diffusion measurements by FRAP. *Biophysical Journal*, 100(2):507-16. IF=4.22
53. Stixová L, Bártová E, Matula P, Daněk O, Legartová S, Kozubek S. (2011) Heterogeneity in the kinetics of nuclear proteins and trajectories of substructures associated with heterochromatin. *Epigenetics and Chromatin* 4:5. IF=4.73*

54. Jugova A, Sustackova G, Legartova S, Stixova L, Kozubek S, Bartova E. (2011) Effects of epigenetic-based anti-cancer drugs in leukemia and multiple myeloma cells. *Cell Biol Int.* 35(12):1195-203, IF=1.75*
55. Šustáčková G, Kozubek S, Stixová L, Legartová S, Matula P, Orlova D, Bártová E. (2011) Acetylation-dependent nuclear arrangement and recruitment of BMI1 protein to UV-damaged chromatin. *J Cell Physiol.* 227(5):1838-50; IF=4.0*
56. Šustáčková G, Legartová S, Kozubek S, Stixová L, Pacherník J, Bártová E. (2011) Differentiation-Independent Fluctuation of Pluripotency-Related Transcription Factors and Other Epigenetic Markers in Embryonic Stem Cell Colonies. *Stem Cells Dev.* 21(5):710-20. IF=4.79*
57. Bártová E, Šustáčková G, Stixová L, Kozubek S, Legartová S, Foltánková V. (2011) Recruitment of Oct4 protein to UV-damaged chromatin in embryonic stem cells. *PLoS One.* 2011;6(12):e27281. IF=4.3.
58. FOLTÁNKOVÁ V., LEGARTOVÁ S., KOZUBEK S., BÁRTOVÁ E. (2012) Tumor-specific histone signature and DNA methylation in multiple myeloma and leukemia cells. *Neoplasma.* 59(4):450-62.
59. Orlova DY, Stixová L, Kozubek S, Gierman HJ, Sustáčková G, Chernyshev AV, Medvedev RN, Legartová S, Versteeg R, Matula P, Stoklasa R, Bártová E. (2012) Arrangement of nuclear structures is not transmitted through mitosis but is identical in sister cells. *J Cell Biochem.* 113(11):3313-29. doi: 10.1002/jcb.24208.
60. Stixová L, Matula P, Kozubek S, Gombitová A, Cmarko D, Raška I, Bártová E. (2012) Trajectories and nuclear arrangement of PML bodies are influenced by A-type lamin deficiency. *Biol Cell.* 2012 Jul;104(7):418-32. doi: 10.1111/boc.201100053. Epub 2012 May 23.
61. Legartová S, Jugová A, Stixová L, Kozubek S, Fojtová M, Zdráhal Z, Lochmanová G, Bártová E. (2012) Epigenetic aspects of HP1 exchange kinetics in apoptotic chromatin. *Biochimie.* 2012 Sep 27. pii: S0300-9084(12)00387-2. doi: 10.1016/j.biochi.2012.09.027.
62. Šmigová J, Juda, Bártová E., Raška I. Dynamics of Polycomb chromatin domains under conditions of increased molecular crowding. Accepted in *Biology of the Cell*, 2013.
63. Legartová S., Stixová L., Strnad H., Kozubek S., Martinet N., Dekker FJ, Franek M., Bártová E. Basic nuclear processes affected by HAT and HDAC inhibitors. *Epigenomics*, 2013, 5(4):379-96.
64. Bártová E and Stixová L. Functional Consequences of Nuclear and Nucleolar Architecture. *Kniha proteins of the Nucleolus*, Editors: Danton H. O'Day and Andrew Catalano, Springer, 2013, ISBN 978-94-007-5818-6. doi: 10.1007/978-94-007-5818-6. Chapter in book.
65. Přikrylová T., Pacherník J., Kozubek S., Bártová E. Epigenetics and chromatin plasticity in embryonic stem cells. *World Journal of Stem Cells*, 5(3): 73-85. ISSN 1948-0210. doi: 10.4252/wjsc.v5.i3.73. review
66. Foltánková V, Legartová S, Kozubek S, Hofer M, Bártová E. DNA-damage response in chromatin of ribosomal genes and the surrounding genome. *Gene.* 2013, 15;522(2):156-67.
67. Foltánková V, Matula P, Sorokin D, Kozubek S, Bártová E. Hybrid detectors improved time-lapse confocal microscopy of PML and 53BP1 nuclear body colocalization in DNA lesions. *Microsc Microanal.* 2013, 19(2):360-9.
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