

## **Doc. RNDr. Pavla Binarová, CSc.**

### **Affiliation:**

Institute of Microbiology, ASCR, v.v.i., Laboratory of Regulation of Gene Expression, Vídeňská 1083, Praha 4, Czech Republic,  
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Citizenship: Czech Republic

### **Position and Employment**

1997 - present Principal Investigator Institute of Microbiology, Academy of Sciences of the Czech Republic, Prague  
1991-1992 Postdoctoral Research Associate University of Saskatchewan, Saskatoon, Canada, Department of Biology.  
1990 Agricultural University of Wageningen, Netherlands, Department of Plant Cytology and Morphology.  
1985-2010 Research Associate, since 1991 Principal Investigator, Institute of Experimental Botany, Academy of Sciences of the Czech Republic, Olomouc

**Current research interest:** Molecular and cellular biology of plant cytoskeleton. Gamma-tubulin role in microtubule organization, regulation of gamma-tubulin function by cell cycle and stress signalling. Functions of gamma-tubulin with transcriptionally active and repressed chromatin in organization of plant nuclei and in interlinking nuclear organization with cytoskeleton.

### **Education:**

1981-1985 CSc. (equivalent of Ph.D.), Charles University in Prague, Czechoslovak Academy of Sciences, Prague (Molecular Biology and Genetics). Mutagenesis and selection in embryogenic plant cell cultures.

### **Teaching**

1997-2009 lecturer in Cell Biology, since 2002 Associated Professor, the Department of Genetic and Cell Biology, University of Palacky, Olomouc,  
2010 - present Member of Board for Ph.D. study in Dev. and Cell Biol., Charles University, Prague.

Supervisor of Ph.D. and diploma students, 12 Ph.D. students, 16 diploma students

### **Other activities:**

Member of Panels of Evaluators Czech grant agency GAČR, GA AVČR.  
Member of Panel of Evaluators Starters grants, European Research Council (ERC), Brusel (2014-2016).  
Projects evaluation for ERC.

Vice-chairman of committee for Cell Biology of Czech Society for Cell Biology

Member of American Society of Cell Biology, Society of Experimental Biology, UK

**Publications:** WOS core collection: 61 publications, 6 book chapters

SCI WOS core collection: 2139 (01.2023), HI 24,

### **Selected recent publications**

De Luxán-Hernández, C., Lohmann, J., Tranque, E., Chumova, J., **Binarova, P.**, Salinas, J., and Magdalena Weingartner.(2022). MDF is a conserved splicing factor and modulates cell

division and stress response in Arabidopsis. Life Science Alliance. Oct 20;6(1): doi: 10.26508/lsa.202201507

Kállai B.M., Kourová H., Chumová J., Papdi C., Trögelová L., Kofroňová O., Hozák P., Filimonenko V., Mészáros T., Magyar Z., Bögre L., **Binarová P.** # (2020).  $\gamma$ -Tubulin interacts with E2FA, E2FB and E2FC transcription factors, regulates proliferation and endocycle in Arabidopsis. J. Exp. Bot. Feb. 19; 71(4), 1265-1277 doi: 10.1093/jxb/erz498.

Chumová, J., Kourová, H., Trögelová, L., Halada, P., **Binarová, P.** # (2019). Microtubular and Nuclear Functions of  $\gamma$ -Tubulin: Are They LINCed? Cells 8(3), 259; DOI: 10.3390/cells8030259.

Chumová, J., Trögelová, L., Kourová, H., Volc, J., Sulimenko, V., Halada, P., Kučera, O., Benada, O., Kuchařová, A., Klebanovych, A., Dráber, P., Daniel, G., **Binarová P.** # (2018).  $\gamma$ -Tubulin has a conserved intrinsic property of self-polymerization into double stranded filaments and fibrillar networks. Biochim Biophys Acta. Molecular Cell Research 2018 Feb 27;1865(5):734-748. doi: 10.1016/j.bbamcr.2018.02.009

Horvath, B., Kourova, H., Nagy, S., Nemeth, S., Magyar, Z., Papdi, C., Ahmad, Z., Sanchez-Perez G., Perilli S., Blilou, I., Meszaros, T., **Binarova, P.**, Bogre, L., B. Scheres #. (2017). Arabidopsis RETINOBLASTOMA RELATED regulates DNA damage response independently of the cell-cycle. EMBO J., May 2; 36(9): 1261–1278. Mar 20. doi: [10.15252/embj.201694561](https://doi.org/10.15252/embj.201694561),

Kohoutová, L., Kourová, H., Nagy S. K. Volc, J., Halada, P., Mészáros, T., Meskiene, I., Bögre, L., **Binarová P.**# (2015). The Arabidopsis mitogen-activated protein kinase 6 is associated with  $\gamma$ -tubulin on microtubules, phosphorylates EB1c and maintains spindle orientation under nitric oxide stress. New Phytol., Sep; 207(4):1061-74. DOI: [10.1111/nph.13501](https://doi.org/10.1111/nph.13501)