



Ex-President of ORPHEUS



Miroslav Cervinka

MD, PhD, Professor

**Department of Medical Biology and Genetics,
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Personal details:

Date and place of Birth: May 24, 1950, Brno, Czech Republic.

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[Research Gate](#)

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Membership in editorial boards:

- 1995-present – member of the of the international journal ATLA (Alternatives to laboratory animals)
- 2000-present – member of the Editorial Board of the international journal ALTEX (Switzerland)
- 2005 Member of the Scientific Board of the World congress about Alternatives, Berlin

ACADEMIC QUALIFICATIONS

1968-973 – Charles University in Prague, Faculty of Sciences, Physiology of Animals
1973-1975 – Postgraduate studies, Charles University in Prague, Faculty of Sciences,
1978-1984 – General Medicine at Faculty of Medicine in Hradec Kralove
1984-1985 – Department of Biology, Medical Faculty, Erasmus University, Rotterdam, The Netherlands - methods of molecular biology
1990 – Department of Human Morphology, Faculty of Medicine Nottingham, toxicity assessment in vitro
1995 – Institut für Zellbiologie und Neurowissenschaften Goethe Universität Frankfurt, Frankfurt am Main

PROFESSIONAL EXPERIENCE

1973 – M.Sc. Physiology of animals, Faculty of Sciences, Charles University Prague,
1975 – Rerum Naturalium Doctor, Faculty of Sciences, Charles University Prague,
1980 – Scientiarum Candidatus CSc. (corresponding to "PhD") in General Biology
1984 – Medicine Universae Doctor (MD), Faculty of Medicine in Hradec Kralove
1989 – Associated Professor in General Biology
2000-present – Professor in Charles University, Faculty of Medicine in Hradec Kralove, Department of Biology

DOCTORAL EDUCATION EXPERIENCE

1990-present – Vice Dean for Research and PhD study, Charles University, Faculty of Medicine in Hradec Kralové

COMMITTEES & BOARDS

1990-present – member of the Scientific Board of the Faculty of Medicine in Hradec Kralove
1992-present – member of the Scientific Board of the Faculty of Pharmacy in Hradec Kralove
1992-present – member of the Scientific Board of the Faculty of Military Medicine in Hradec Kralove
1995-present – member of the Scientific Board of the Charles University

ACADEMIC AWARDS & DISTINCTIONS

1996 – jubilee medal of the Charles University
1995 – jubilee medal of the Faculty of Medicine
2000 – memorial medal of the Military Medical Academy in Hradec Kralove

MEMBERSHIP OF PROFESSIONAL ORGANIZATIONS

- European Society for In vitro Toxicity
- ECOPA - European consensus platform
- Czecho-Slovak Biological Society
- Czech Physiological Society

SELECTED PUBLICATIONS

Červinka M., Cerman J., Rudolf E. Apoptosis in Hep2 cells treated with etoposide and colchicine. Cancer Detection and Prevention. 2004;28(3):214-26.

Kiss K., Kiss J., Rudolf E., Červinka M., Szeberényi J. Sodium salicylate inhibits NF-kappaB and induces apoptosis in PC12 cells. J Biochem Biophys Method. 2004;61(1-2):229-40.

Rudolf E., Radocha J., Červinka M., Cerman J. Combined effect of sodium selenite and camptothecin on cervical carcinoma cells.

Neoplasma. 2004;51(2):127-35.

Rudolf E., Rudolf K., **Červinka M.** Zinc induced apoptosis in HEP-2 cancer cells: The role of oxidative stress and mitochondria. *BioFactors*. 2005;23(2):107-20.

Rudolf E., **Červinka M.** The Role of Biomembranes in Chromium (III)-induced Toxicity In Vitro. *ATLA-Alternatives to Laboratory Animals*. 2005;33(3):249-59.

Rudolf E., **Červinka M.**, Cerman J. Zinc has ambiguous effects on chromium (VI)-induced oxidative stress and apoptosis. *Journal of Trace Elements in Medicine and Biology*. 2005;18(3):251-60.

Rudolf E., **Červinka M.**, Cerman J., Schröterová L. Hexavalent chromium disrupts the actin cytoskeleton and induces mitochondria-dependent apoptosis in human dermal fibroblasts. *Toxicology in Vitro*. 2005;19(6):713-23.

Rudolf E., **Červinka M.** The role of intracellular zinc in chromium(VI)-induced oxidative stress, DNA damage and apoptosis. *Chemico-Biological Interactions*. 2006;162(3): 212-227.

Rudolf E., Andělová H., **Červinka M.** Polyphenolic compounds in chemoprevention of colon cancer targets and signalling pathways. *Anti-Cancer Agents Med Chem*. 2007;7(6):559-575.

Červinka M., Červinková Z., Rudolf E. The role of time-lapse fluorescent microscopy in the characterization of toxic effects in cell populations cultivated in vitro. *Toxicol in Vitro*. 2008;22(5):1382-6.

Rudolf E., Králová V., **Červinka M.** Selenium and colon cancer - from chemoprevention to new treatment modality. *Anti-Cancer Agents in Medicinal Chemistry*. 2008;8(6):598-602.

Rudolf E., Rudolf K., **Červinka M.** Selenium activates p53 and p38 pathways and induces caspase-independent cell death in cervical cancer cells. *Cell Biology and Toxicology*. 2008;24(2):123-41.

Rudolf E., **Červinka M.** Trivalent chromium activates Rac-1 and Src and induces switch in the cell death mode in human dermal fibroblasts. *Toxicology Letters*. 2009;188(3):236-42.

Červinka M., Rudolf E., Blaauboer B. Quantitative cytometry as a tool for toxicity assessment (27th annual workshop of the Scandinavian Society for Cell Toxicology). *Toxicol In Vitro*. 2010;24(8):2059.

Brigulová K., **Červinka M.**, Tošner J., Sedláková I. Chemoresistance testing of human ovarian cancer cells and its in vitro model. *Toxicol In Vitro*. 2010;24(8):2108-15.

Vrbáček F., Smolej L., Vrbáček V., Peková S., Hrudková M., **Červinka M.** et al. Angiopoietin-2 mRNA expression is increased in chronic lymphocytic leukemia patients with poor prognostic features. *Hematology*. 2010;15(4):210-4.

Rudolf E., **Červinka M.** Responses of human gingival and periodontal fibroblasts to a low-zinc environment. *Altern Lab Anim*. 2010;38(2):119-38.

Rudolf E., **Červinka M.** Nickel modifies the cytotoxicity of hexavalent chromium in human dermal fibroblasts. *Toxicol Lett*. 2010;197(2):143-50.

Rudolf K., **Červinka M.**, Rudolf E. Dual inhibition of topoisomerases enhances apoptosis in melanoma cells. *Neoplasma*. 2010;57(4):316-24.

Rudolf E., Rudolf K., **Červinka M.** Camptothecin induces p53-dependent and -independent apoptogenic signalling in melanoma cells. *Apoptosis*. 2011;16(11):1165-76.

Rudolf E., **Červinka M.** Sulforaphane induces cytotoxicity and lysosome- and mitochondria-dependent cell death in colon cancer cells with deleted p53. *Toxicol In Vitro*. 2011 Oct;25(7):1302-9.

Rudolf E., **Červinka M.** Stress responses of human dermal fibroblasts exposed to zinc pyrithione. *Toxicol Lett*. 2011;204(2-3):164-73.

Caltová K., **Červinka M.** Antiproliferative effects of selected chemotherapeutics in human ovarian cancer cell line A2780. *Acta Medica (Hradec Kralove)*. 2012;55(3):116-24.

Rudolf E., John S., **Červinka M.** Irinotecan induces senescence and apoptosis in colonic cells in vitro. *Toxicol Lett*. 2012;214(1):1-8.

Králová V., Benešová S., **Červinka M.**, Rudolf E. Selenite-induced apoptosis and autophagy in colon cancer cells. *Toxicol In Vitro*. 2012;26(2):258-68.

Stanislav J., Mls J., **Červinka M.**, Rudolf E. The role of autophagic cell death and apoptosis in irinotecan-treated p53 null colon cancer cells. *Anticancer Agents Med Chem*. 2013;13(5):811-20.

Rudolf E., Rezáčková K., **Červinka M.** Activation of p38 and changes in mitochondria accompany autophagy to premature senescence-like phenotype switch upon chronic exposure to selenite in colon fibroblasts. *Toxicol Lett*. 2014;231(1):29-37.

Rudolf K., **Červinka M.**, Rudolf E. Sulforaphane-induced apoptosis involves p53 and p38 in melanoma cells. *Apoptosis*. 2014;19(4):734-47.

Sedláková I., Laco J., Caltová K., **Červinka M.** et al. Clinical significance of the resistance proteins LRP, Pgp, MRP1, MRP3, and MRP5 in epithelial ovarian cancer. *Int J Gynecol Cancer*. 2015;25(2):236-43.