

Publications with more independent citations than their rank

(h-index = 41; h-index = 37¹; w-index = 12)

1. Csermely, P., Schnaider, T., Söti, Cs., Prohászka, Z. and Nardai, G. (1998) The 90 kDa molecular chaperone family: structure, function and clinical applications. A comprehensive review. *Pharmacology and Therapeutics*, 79, 129-168 – 619 citations

(Citation classic papers with citations over 400)

2. Csermely, P., Ágoston, V. and Pongor, S. (2005) The efficiency of multi-target drugs: the network approach might help drug design. *Trends Pharmacol. Sci.* 26, 178-182 – 263 citations
3. Sreedhar, A.S. and Csermely, P. (2004) Heat shock proteins in the regulation of apoptosis. A comprehensive review. *Pharmacology and Therapeutics* 101, 227-257 – 245 citations
4. Tompa P. and Csermely P. (2004) The role of structural disorder in RNA- and protein chaperone function. *FASEB J.* 18, 1169-1175 – 219 citations
5. Sreedhar, A.S., Kalmar, E., Csermely, P. and Shen, Y. F. (2004) Hsp90 isoforms: functions, expression and clinical importance. *FEBS Lett.* 562, 11-15 – 218 citations

(Papers contributing to the cumulative h-index of Hungary after 1945; 212 in 2011)

6. Söti, C., Nagy, E., Giricz, Z., Vigh, L., Csermely, P. and Ferdinandy, P. (2005) Heat shock proteins as emerging therapeutic targets. *Br. J. Pharmacol.* 146, 769-780 – 207 citations
7. Rocard, M., Csermely, P., Jorde, D., Lenzen, D., Walberg-Henrikson, H and Hemmo, V. (2007) Science Education NOW: A renewed pedagogy for the future of Europe. Report of the European Commission – 203 citations
8. Csermely, P., Szamel, M., Resch, K. and Somogyi, J. (1988) Zinc can increase the activity of protein kinase C and contributes to its binding to plasma membranes in T lymphocytes. *J. Biol. Chem.* 263, 6487-6490 – 177 citations
9. Söti, Cs., Rácz, A. and Csermely, P. (2002) A nucleotide-dependent molecular switch controls ATP binding at the C-terminal domain of Hsp90: N-terminal nucleotide binding unmask a C-terminal binding pocket. *J. Biol. Chem.* 277, 7066-7075 – 163 citations
10. Csermely, P. and Kahn, C.R. (1991) The 90 kDa heat shock protein (hsp-90) possesses an ATP-binding site and autophosphorylating activity. *J. Biol. Chem.* 266, 4943-4950 – 152 citations
11. Csermely, P., Kajtár, J., Hollósi, M., Jalsovszky, G., Holly, S., Kahn, C.R., Gergely, P. Jr., Söti, Cs., Mihály, K. and Somogyi, J. (1993) ATP induces a conformational change of the 90 kDa heat shock protein (hsp-90). *J. Biol. Chem.* 268, 1901-1907 – 122 citations
12. Csermely, P., Palotai, R. and Nussinov, R. (2010) Induced fit, conformational selection and independent dynamic segments: an extended view of binding events. *Trends Biochem. Sci.* 35, 539-546 – 120 citations

(Publications with more than 10-times the independent citations than their rank; w-index = 12)

13. Pál, C., Papp, B., Lercher, M.J., Csermely, P., Oliver, S.G. and Hurst, L.D. (2006) Chance and necessity in the evolution of minimal metabolic networks. *Nature* 440, 667-670. IF: 29.3 – 110 citations
14. Csermely, P. (2006) *Weak links: Stabilizers of Complex Systems from Proteins to Social Networks*, Springer Verlag, pp. 392 – 106 citations
15. Sreedhar, A.S., Söti, Cs. and Csermely, P. (2004) Inhibition of Hsp90: a new strategy for inhibiting protein kinases. *Biochim. Biophys. Acta (Proteomics)*, 1697, 233-242 – 106 citations
16. Kahn, C.R., White, M.F., Shoelson, S.E., Backer, J.M., Araki, E., Cheatham, B., Siddle, K., Sun, X., Wilden, P.A., Yamada, K., Csermely, P., Folli, F., Goldstein, B.J., Huertas, P., Rothenberg, P.L. and Saad, M.J.A. (1993) The insulin receptor and its substrate: molecular determinants of early events in insulin action. *Recent Progress in Hormone Res.* 48, 291-339 – 99 citations
17. Söti, Cs. and Csermely, P. (2003) Ageing and molecular chaperones. *Exp. Gerontol.* 38, 1037-1040 – 95 citations
18. Papp, E., Nardai, G., Söti, Cs. and Csermely, P. (2003) Molecular chaperones, stress proteins and redox homeostasis. *Biofactors* 17, 249-257 – 82 citations
19. Söti Cs. and Csermely, P. (2000) Molecular chaperones and the aging process. *Biogerontology*, 1, 225-233 – 77 citations
20. Henics, T., Nagy, E., Oh, H-J., Csermely, P., von Gabain, A. and Subject, J.R. (1999) Mammalian Hsp70 and Hsp110 proteins bind to RNA motifs involved in mRNA stability. *J. Biol. Chem.*, 274:17318-17324 – 76 citations

¹The h-index is considering the input of the co-authors by removing all those papers from the h-index, which are not belonging to the co-authors h-index dataset. These papers are marked with italics letters and their minimal citation to be included to the h-index is given.

21. Csermely, P., Miyata, Y., Schnaider, T. and Yahara, I. (1995) Autophosphorylation of grp94 (endoplasmic). *J. Biol. Chem.* 270, 6381-6388 – 75 citations
 22. Söti, Cs. and Csermely, P. (2002) Chaperones and aging: their role in neurodegeneration and other civilizational diseases. *Neurochem. International.* 41, 383-389 – 74 citations
 23. Hargitai, J., Lewis, H. Boros, I., Rácz, T., Fiser, A., Kurucz, I., Benjamin, I., Péntzes, Z., Vigh, L., Csermely, P. and Latchman, D.S. (2003) Bimoclolmol, a heat shock protein co-inducer acts by the prolonged activation of heat shock factor-1 (HSF-1). *Biochem. Biophys. Res. Commun.* 307, 689-695 – 64 citations
 24. Soti, C., Pal, C., Papp, B. and Csermely, P. (2005) Chaperones as regulatory elements of cellular networks. *Curr. Op. Cell Biol.* 17, 210-215 – 64 citations
 25. Prohászka, Z., Német, K., Csermely, P., Hudecz, F., Mező, G. and Füst, G. (1997) Defensins purified from human granulocytes bind C1q and activate the classical complement pathway like the transmembrane glycoprotein gp41 of HIV-1. *Molecular Immunology* 34, 809-816 – 64 citations
 26. Steták, A., Veress, R. Ovádi, J., Csermely, P., Kéri, G. and Ullrich, A. (2007) Nuclear translocation of the tumor marker Pyruvate-Kinase M2 induces programmed cell death. *Cancer Res.* 67, 1602-1608, IF: 7.7 – 63 citations (69 is the minimum for considering to ħ)
 27. Csermely, P. (2001) Chaperone-overload as a possible contributor to “civilization diseases”: atherosclerosis, cancer, diabetes. *Trends in Genetics*, 17, 701-704 – 62 citations
 28. Csermely, P. (2004) Strong links are important – but weak links stabilize them. *Trends in Biochem. Sci.* 29, 331-334, IF: 14.3 – 58 citations
 29. Agoston, V., Csermely, P. and Pongor, S. (2005) Multiple, weak hits confuse complex systems: a transcriptional regulatory network as an example. *Phys. Rev. E.* 71, 051909, IF: 2.4 – 58 citations
 30. Söti, C., Sreedhar, A.S. and Csermely, P. (2003) Apoptosis, necrosis and cellular senescence: chaperone occupancy as a potential switch. *Aging Cell* 2, 39-45 – 58 citations
 31. Csermely, P., Schnaider, T. and Szántó, I. (1995) Signalling and transport through the nuclear membrane. *Biochim. Biophys. Acta*, 1241, 425-452 – 57 citations
 32. Varga, S., Csermely, P. and Martonosi, A. (1985) The binding of vanadium(V)oligoanions to the Ca-ATPase of sarcoplasmic reticulum. *Eur. J. Biochem.* 148, 119-126 – 56 citations
 33. Csermely, P., Martonosi, A., Levy, G.C. and Eychart, A.J. (1985) 51-V-NMR analysis of the binding of vanadium oligoanions to sarcoplasmic reticulum. *Biochem. J.* 230, 807-815 – 56 citations
 34. Saad, M.J.A., Folli, F., Araki, E., Hashimoto, N., Csermely, P. and Kahn, C.R. (1994) Regulation of insulin receptor, IRS-1 and phosphatidylinositol-3-kinase in 3T3-F442A adipocytes. Effects of differentiation, insulin and dexamethasone. *Mol. Endocrinol.* 8, 545-557 – 54 citations (89 is the minimum for considering to ħ)
 35. Böde, C., Kovács, I.A., Szalay, M.S., Palotai, R. Korcsmáros, T. és Csermely, P. (2007) Network analysis of protein dynamics. *FEBS Lett.* 581, 2776-2782, arxiv.org/q-bio.BM/0703025, IF: 3,4 – 53 citations
 36. Nardai, G., Csermely, P. and Söti, Cs. (2002) Chaperone function and chaperone overload in the aged. *Exp. Gerontol.* 37, 1255-1260 – 53 citations
 37. Meyerovitch, J., Backer, J.M., Csermely, P., Shoelson, S.E. and Kahn, C.R. (1992) Insulin differentially regulates protein phosphotyrosine phosphatase activity in rat hepatoma cells. *Biochemistry* 31, 10338-10344 – 48 citations (89 is the minimum for considering to ħ)
 38. Sreedhar, A.S., Mihály, K., Pató, B., Schnaider, T., Steták, A., Kis-Petik, K., Fidy, J., Simonics, T., Maráz, A. and Csermely, P. (2003) Hsp90 inhibition accelerates cell lysis: anti-Hsp90 ribozyme reveals a complex mechanism of Hsp90 inhibitors involving both superoxide- and Hsp90-dependent events. *J. Biol. Chem.* 278, 35231-35240 – 47 citations
 39. Stress of life from molecules to man. (szerk.: P. Csermely) *Annals of the New York Academy of Sciences*, 1998, vol. 851 – 47 citations
 40. Korcsmáros, T., Szalay, M.S., Böde, C., Kovács, I.A., and Csermely, P. (2007) How to design multi-target drugs: Target-search options in cellular networks. *Expert Op. Drug Discov.* 2, 1-10 – 46 citations
 41. Török, Zs., Tsvetkova, N.M., Balogh, G., Horváth, I., Nagy, E., Péntzes, Z., Hargitai, J., Bensaude, O., Csermely, P., Crowe, J.H., Maresca, B. és Vigh, L. (2003) Heat shock protein co-inducers with no effect on protein denaturation specifically modulate the membrane lipid phase. *Proc. Natl. Acad. Sci. USA* 100, 3131-3136, IF: 10,7 – 43 citations
 42. Csermely, P., Katopis, C. H., Wallace, B. A. and Martonosi, A. (1987) The E1 -> E2 transition of Ca-transporting ATPase in sarcoplasmic reticulum occurs without major changes in secondary structure. A circular dichroism study. *Biochem. J.* 241, 663-669 – 41 citations
- (Publications with more independent citations than their rank; h-index = 41)**
43. Csermely, P., Schnaider, T., Cheatham, B., Olson, M.O.J. and Kahn, C.R. (1993) Insulin induces the phosphorylation of nucleolin: a possible mechanism of insulin-induced RNA-efflux from nuclei. *J. Biol. Chem.* 268, 9747-9752 – 40 citations (89 is the minimum for considering to ħ)

44. Sőti, Cs. and Csermely, P. (1998) Molecular chaperones in the etiology and therapy of cancer. *Pathology Oncology Res.* 4, 316-321 – 40 citations
 45. Csermely, P. és Somogyi, J. (1989) Zinc as a possible mediator of signal transduction in T lymphocytes. *Acta Physiol. Hung.* 74, 195-199 – 38 citations
 46. Csermely, P., Sándor, P., Radics, L. and Somogyi, J. (1989) Zinc forms complexes with higher kinetical stability than calcium, 5F-BAPTA as a good example. *Biochem. Biophys. Res. Commun.* 165, 838-844 – 37 citations
 47. Sőti Cs. és Csermely, P. (2002) Chaperones come of age. *Cell Stress and Chaperones* 7, 186-190 – 36 citations
 48. Chatterjee, S., Goldstein, B.J., Csermely, P. and Shoelson, S.E. (1992) Design and synthesis of potent substrates and inhibitors of PTPases. In: *Peptides: chemistry and biology* (eds.: J.E. Rivier and J.A. Smith) ESCOM Science Publishers, Leiden, Netherlands, pp. 553-555 – 35 citations
 49. Nardai, G., Sass, B., Eber, J., Orosz, Gy. és Csermely, P. (2000) Reactive cysteines of the 90 kDa heat shock protein, Hsp90. *Arch. Biochem. Biophys.* 384, 59-67 – 34 citations
 50. Csermely, P., Szamel, M., Resch, K. és Somogyi, J. (1988) Zinc increases the affinity of phorbol ester receptor in T lymphocytes. *Biochem. Biophys. Res. Commun.* 154, 578-583 – 34 citations
 51. Csermely, P., Kajtár, J., Hollósi, M., Oikarinen, J. és Somogyi, J. (1994) The 90 kDa heat shock protein (hsp90) induces the condensation of the chromatin structure. *Biochem. Biophys. Res. Commun.* 202, 1657-1663 – 32 citations
 52. Sőti, Cs., Vermes, A., Haystead, T.A. és Csermely, P. (2003) Comparative analysis of the N- and C-terminal ATP-binding sites of Hsp90: a distinct nucleotide specificity of the C-terminal ATP-binding site. *Eur. J. Biochem.* 270, 2421-2428, IF: 3,0 – 32 citations
 53. Papp E. és Csermely, P. (2005) Chemical chaperones. In: *Molecular Chaperones in Health and Disease* (szerk.: M. Gaestel). Springer Verlag, *Handbook of Experimental Pharmacology* 172: 405-416 – 31 citations
- (Publications with more citations than 30)**