

### Publications with more independent citations than their rank

(h-index = 40; h-index = 34<sup>1</sup>; w-index = 10)

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 – 502 citations

**(Citation classic papers with citations over 400 +**

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

2. Sreedhar, A.S. and Csermely, P. (2004) Heat shock proteins in the regulation of apoptosis. A comprehensive review. *Pharmacology and Therapeutics* 101, 227-257 – 192 citations
3. 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 – 180 citations
4. 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 – 170 citations
5. Tompa P. and Csermely P. (2004) The role of structural disorder in RNA- and protein chaperone function. *FASEB J.* 18, 1169-1175 – 166 citations
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 – 160 citations
7. Sreedhar, A.S., Kalmar, E., Csermely, P. and Shen, Y. F. (2004) Hsp90 isoforms: functions, expression and clinical importance. *FEBS Lett.* 562, 11-15 – 155 citations
8. 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 unmasks a C-terminal binding pocket. *J. Biol. Chem.* 277, 7066-7075 – 137 citations
9. 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 – 135 citations
10. 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 – 110 citations

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

11. 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 – 91 citations
12. 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 – 90 citations
13. Söti, Cs. and Csermely, P. (2003) Ageing and molecular chaperones. *Exp. Gerontol.* 38, 1037-1040 – 82 citations
14. 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 – 82 citations
15. 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 – 79 citations
16. Söti Cs. and Csermely, P. (2000) Molecular chaperones and the aging process. *Biogerontology*, 1, 225-233 – 72 citations
17. Csermely, P., Miyata, Y., Schnaider, T. and Yahara, I. (1995) Autophosphorylation of grp94 (endoplasmic). *J. Biol. Chem.* 270, 6381-6388 – 71 citations
18. 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 – 70 citations
19. Csermely, P. (2006) *Weak links: Stabilizers of Complex Systems from Proteins to Social Networks*, Springer Verlag, pp. 392 – 65 citations
20. Söti, Cs. and Csermely, P. (2002) Chaperones and aging: their role in neurodegeneration and other civilizational diseases. *Neurochem. International.* 41, 383-389 – 65 citations

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<sup>1</sup>The h-index is considering the input of the co-authors by removing all those papers, 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. Papp, E., Nardai, G., Söti, Cs. and Csermely, P. (2003) Molecular chaperones, stress proteins and redox homeostasis. *Biofactors* 17, 249-257 – 60 citations
  22. Csermely, P., Schnaider, T. and Szántó, I. (1995) Signalling and transport through the nuclear membrane. *Biochim. Biophys. Acta*, 1241, 425-452 – 56 citations
  23. Prohászka, Z., Németh, 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 – 55 citations
  24. 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 – 53 citations
  25. Soti, C., Pal, C., Papp, B. and Csermely, P. (2005) Chaperones as regulatory elements of cellular networks. *Curr. Op. Cell Biol.* 17, 210-215 – 53 citations
  26. Csermely, P., Martonosi, A., Levy, G.C. and Echart, A.J. (1985) 51-V-NMR analysis of the binding of vanadium oligoanions to sarcoplasmic reticulum. *Biochem. J.* 230, 807-815 – 51 citations
  27. Csermely, P. (2001) Chaperone-overload as a possible contributor to “civilization diseases”: atherosclerosis, cancer, diabetes. *Trends in Genetics*, 17, 701-704 – 50 citations
  28. Hargitai, J., Lewis, H., Boros, I., Rácz, T., Fiser, A., Kurucz, I., Benjamin, I., Péntes, Z., Vigh, L., Csermely, P. and Latchman, D.S. (2003) Bimoclomol, 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 – 50 citations (64 is the minimum for considering to ħ)
  29. Stress of life from molecules to man. (szerk.: P. Csermely) *Annals of the New York Academy of Sciences*, 1998, vol. 851 – 48 citations
  30. Nardai, G., Csermely, P. and Söti, Cs. (2002) Chaperone function and chaperone overload in the aged. *Exp. Gerontol*, 37, 1255-1260 – 48 citations
  31. 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 (87 is the minimum for considering to ħ)
  32. 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 – 48 citations (87 is the minimum for considering to ħ)
  33. 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 – 46 citations
  34. 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 – 45 citations (56 is the minimum for considering to ħ)
  35. 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 – 43 citations
  36. Csermely, P. (2004) Strong links are important – but weak links stabilize them. *Trends in Biochem. Sci.* 29, 331-334, IF: 14.3 – 42 citations
  37. 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
  38. 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 (87 is the minimum for considering to ħ)
  39. Söti, Cs. and Csermely, P. (1998) Molecular chaperones in the etiology and therapy of cancer. *Pathology Oncology Res.* 4, 316-321 – 40 citations
  40. 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 – 40 citations (67 is the minimum for considering to ħ)
- (Publications with more independent citations than their rank; h-index = 40)**
41. Török, Zs., Tsvetkova, N.M., Balogh, G., Horváth, I., Nagy, E., Péntes, 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 – 37 citations
  42. 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 – 36 citations

43. Csermely, P. és Somogyi, J. (1989) Zinc as a possible mediator of signal transduction in T lymphocytes. *Acta Physiol. Hung.* 74, 195-199 – 35 citations
44. 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
45. Agoston, V., Csermely, P. and Pongor, S. (2005) Multiple, weak hits confuse complex systems: a transcriptional regulatory network as an example. [www.arxiv.org/q-bio.MN/0410026](http://www.arxiv.org/q-bio.MN/0410026), *Phys. Rev. E* 71, 051909, IF: 2.4 – 34 citations
46. 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 – 32 citations
47. 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 – 32 citations
48. Sőtí Cs. és Csermely, P. (2002) Chaperones come of age. *Cell Stress and Chaperones* 7, 186-190 – 31 citations
49. 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](http://arxiv.org/q-bio.BM/0703025), IF: 3,4 – 30 citations

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