

## Publications:

1. **Hu, C.D.**, Zhang, X.-H., and Bi, E.-H. Role of macrophages in the modulation of NK activity. *Foreign Medicine, Part of Immunology*, **10**, 16-20 (1987) (review in Chinese).
2. **Hu, C.D.** and Zhang, X.-H. Influence of EM on specific immune responses in normal Swiss mice. *Chinese Journal of Immunology*, **4**, 176-178 (1988) (in Chinese).
3. **Hu, C.D.** and Zhang, X.-H. Influence of EM on spleen cells NK activity and its mechanisms. *Chinese Journal of Microbiology and Immunology*, **8**, 11-14 (1989) (in Chinese).
4. **Hu, C.D.**, Zhan, Z.-L., and He, S.-P. Study on the mutagenicity of trichloromethane. *Chinese J. Public Health*, **5**, 220-222 (1990) (in Chinese).
5. **Hu, C.D.**, Zhan, Z.-L. and He, S.-P. Study on the influential factors and the sensitivity of microtitre fluctuation test. *Journal of Healthy and Toxicology*, **4**, 115-118 (1990) (in Chinese).
6. **Hu, C.D.**, Kariya, K., Tamada, M., Akasaka, K., Shirouzu, M., Yokoyama, S., and Kataoka, T. Cysteine-rich region of Raf-1 interacts with activator domain of post-translationally modified Ha-Ras. *J. Biol. Chem.*, **270**, 30274-30277 (1995).
7. Yanagihara, C., Shinkai, M., Kariya, K., Yamawaki-Kataoka, Y., **Hu, C.D.**, Masuda, T., and Kataoka, T. Association of elongation factor 1 $\alpha$  and ribosomal protein L3 with the proline-rich region of yeast adenylyl cyclase-associated protein CAP. *Biochem. Biophys. Res. Commun.*, **232**, 503-507(1997).
8. **Hu, C.D.**, Kariya, K., Kotani, G., Shirouzu, M., Yokoyama, S., and Kataoka, T. Coassociation of Rap1A and Ha-Ras with Raf-1 N-terminal region interferes with Ras-dependent activation of Raf-1. *J. Biol. Chem.*, **272**, 11702-11705 (1997).
9. Tamada, M., **Hu, C.D.**, Kariya, K., Okada, T., and Kataoka, T. Membrane recruitment of Raf-1 by association is not only the major function of Ras in Raf-1 activation, *Oncogene*, **15**, 2959-2964 (1997).
10. Shibatohe, M., Kariya, K., Liao, Y., **Hu, C.D.**, Watari, Y., Goshima, M., Shima, F., and Kataoka, T. Identification of PLC210, a *C. elegans* homolog of phospholipase C, as a putative effector of Ras, *J. Biol. Chem.*, **273**, 6218-6222 (1998).
11. Shirouzu, M., Morinaka, K., Koyama, S., **Hu, C.D.**, Hori-Tamura, N., Okada, T., Kariya, K., Kataoka, T., Kikuchi, A, and Yokoyama, S. Interactions of the amino acid residue at position 31 of the c-Ha-Ras with Raf-1 and RalGDS, *J. Biol. Chem.*, **273**, 7737-7742 (1998).
12. Ohnishi, M., Yamawaki-Kataoka, Kariya, K., Tamada, M., **Hu, C.D.**, and Kataoka, T. Selective inhibition of Ras interaction with its particular effector by synthetic peptides corresponding to the Ras effector region, *J. Biol. Chem.*, **273**, 10210-10215 (1998).
13. Kataoka, T., Kariya, K., Yamawaki-Kataoka, Y., **Hu, C.D.**, Shirouzu, M., Yokoyama, S., Okada, T., and Shima, F. Isoprenylation-dependent and independent interaction of Ras with its effectors. In Kuzumaki, N. Cytoskeleton

- and G-Protein in the Regulation of Cancer. *Hokaido University Medical Library Series*, **37**, 141-146 (1998).
14. Watari, Y., Kariya, K., Shibatohe, M., Liao, Y., **Hu, C.D.**, Goshima, M., Tamada, M., Kikuchi, A., and Kataoka, T. Identification of Ce-AF-6, a novel *Caenorhabditis elegans* protein, as a putative Ras effector, *Gene*, **224**, 53-58 (1998).
  15. **Hu, C.D.**, Kariya, K., Okada, T., Qi, X., Song, C., and Kataoka, T. Effect of phosphorylation on activities of Rap1A to interact with Raf-1 and to suppress Ras-dependent Raf-1 activation, *J. Biol. Chem.*, **274**, 48-51 (1999).
  16. Okada, T., **Hu, C.D.**, Jin T.-G., Kariya, K., Yamawaki-Katatoka, Y., and Kataoka, T. The strength of interaction at the Raf cysteine-rich region domain is a critical determinant of response of Raf to Ras family small GTPase. *Mol. Cell Biol.* **19**:6057-6064 (1999).
  17. Tanaka, Y., Minami, Y., Mine, S., Hirano, H., **Hu, C.D.**, Fujimoto, H., Fujii, K., Saito, K., Tsukada, J., van Kooyk, Y., Figdor, C. G., Kataoka, T., and Eto, S. H-Ras signals to cytoskeletal machinery in induction of integrin-mediated adhesion of T cells. *J. Immunol.*, **163**, 6209-6216 (1999).
  18. Liao, Y., Kariya, K., **Hu, C.D.**, Shibatohe, M., Goshima, M., Okada, T., Watari, Y., Gao, X., Jin, T.-G., Yamawaki-Katatoka, Y., and Kataoka, T. RA-GEF, a novel Rap1A guanine nucleotide exchange factor containing a Ras/Rap1A-associating domain, is conserved between nematode and humans. *J. Biol. Chem.* **274**, 37815-37820 (1999).
  19. Shima, F., Okada, T., Kido, M., Sen, H., Tanaka, Y., Tamada, M., **Hu, C.D.**, Yamawaki-Kataoka, Y., Kariya, K., and Kataoka, T. Association with CAP forms a second Ras-binding site of yeast adenylyl cyclase which mediates activation by posttranslationally modified Ras protein. *Mol. Cell Biol.* **20**, 26-33 (2000).
  20. Sen, H., **Hu, C.D.**, Wu, D., Song, C., Yamawaki-Katatoka, Kotani, J., Okada, T., Shima, F., Kariya, K., and Kataoka, T. Role of Raf-1 conserved region 2 in regulation of Ras-dependent Raf-1 activation. *Biochem. Biophys. Res. Commun.*, **271**, 596-602 (2000).
  21. Song\*, C., **Hu\*, C.D.**, Masago, M., Kariya, K., Yamawaki-Katatoka, Y., Shibatohe, M., Sen, H., Wu, D., Satoh, T., and Kataoka, T. Regulation of a novel human phospholipase C, PLC- $\epsilon$  through differential membrane targeting by Ras and Rap1 *J. Biol. Chem.* **276**, 2752-2757 (2001).  
\*Equal contribution to this work
  22. Liao, Y., Satoh, T., Gao, X., Jin, T.-G., **Hu, C.D.**, and Kataoka, T. RA-GEF-1, a guanine nucleotide exchange factor for Rap1, is activated by translocation induced by association with Rap1GTP and enhances Rap1-dependent B-Raf activation. *J. Biol. Chem.* **276**, 28478-28483 (2001).
  23. Jin T.-G., Satoh T., Liao Y., Song C., Gao X., Kariya K., **Hu, C.D.**, and Kataoka T. Role of the CDC25 homology domain of phospholipase C-epsilon in amplification of Rap1-dependent signaling. *J. Biol. Chem.* **276**, 30301-30307 (2001).
  24. Gao X., Satoh T., Liao Y., Song C., **Hu, C.D.**, Kariya K., and Kataoka T.

- Identification and characterization of RA-GEF-2, a Rap guanine nucleotide exchange factor that serves as a downstream target of M-Ras. *J. Biol. Chem.* **276**, 42219-42225 (2001).
25. **Hu, C.D.**, Chinenov, Y., and Kerppola, T Visualization of interactions among bZIP and Rel family proteins in living cells using bimolecular fluorescence complementation. *Mol. Cell.* **9**, 789-798 (2002).
  26. **Hu, C.D.** and Kerppola, T. Simultaneous visualization of interactions between multiple proteins in living cells using multicolor bimolecular fluorescence complementation analysis. *Nat. Biotechnol.* **21**, 539-545 (2003).
  27. Grinberg A., **Hu, C.D.**, and Kerppola T. Visualization of Myc/Max/Mad family dimers and the competition for dimerization in living cells. *Mol. Cell Biol.* **24**, 4294-4308 (2004).
  28. Shyu, Y., Liu, H., Deng, X., and **Hu, C.D.** Identification of new fluorescent fragments for BiFC analysis under physiological conditions. *BioTechniques*, **40**:61-66 (2006).
  29. Liu, H., Deng, X., Shyu, Y., Li, J.J., Taparowsky, E.J., and **Hu, C.D.** Mutual regulation of c-Jun and ATF2 by transcriptional activation and subcellular localization. *EMBO J.*, **25**:1058-1069 (2006).
  30. Wang ,KZQ, Wara-Asparati, N., Boch, J.A., Yoshida, Y., **Hu, C.D.**, Galson, D.L., and Auron, P.E. TRAF6 activation of PI3 kinase-dependent cytoskeletal changes is cooperative with Ras and mediated by an interaction with cytoplasmic c-Src. *J. Cell Sci.* **119**:1579-1591 (2006).
  31. Tong, E.H.Y., Guo, J.J., Haung, A., Liu, H., **Hu, C.D.**, Chung, S.S.M., and Ko, C.B. Regulation of nucleocytoplasmic trafficking of transcription factor OREBP/TonEBP/NFAT5. *J. Biol. Chem.* **281**:23870-23879 (2006).
  32. Shyu, Y., Suarez, C., and **Hu, C.D.** Visualization of AP-1-NF- $\kappa$ B ternary complexes in living cells by using a BiFC-based FRET. *Proc Natl Acad Sci U.S.A.*, **105**:151-156 (2008).
  33. Shyu, Y., Fox, SM., Duren, HM., Ellis, R.E., Kerppola, T.K. and **Hu, C.D.** Visualization of protein interaction in living *Caenorhabditis elegans* using bimolecular fluorescence complementation (BiFC) analysis. *Nat Protoc.*, **4**:588-596 (2008).
  34. Shyu, Y., Suarez C.D., and **Hu, C.D.** Visualizing ternary complexes in living cells using BiFC-FRET analysis. *Nat. Protoc.* **3**:1693-1702 (2008).
  35. Vidi, P.A., Chemel, B.R., **Hu, C.D.**, Watts, V.J. Ligand-Dependant Oligomerization of Dopamine D<sub>2</sub> and Adenosine A<sub>2A</sub> Receptors in Living Neuronal Cells. *Mol. Pharmacol.* **74**:544-551 (2008)
  36. Hiatt, S.M., Shyu, Y., Duren, H.M, and **Hu, C.D.** Bimolecular fluorescence complementation (BiFC) analysis of protein interactions in living *C. elegans*. *Methods*, **45**:185-191 (2008)
  37. Deng, X., Liu, H., Huang, J., Cheng, L., Keller, E.T., Parsons, S.J., and **Hu, C.D.** Ionizing radiation induces prostate cancer neuroendocrine differentiation through interplay of CREB and ATF2: Implications for disease progression. *Cancer Res.* **68**:9663-9670 (2008)
  38. Yuan, Z., Gong, S., Song, B., Mei, Y., Hu, C., Li, D., Thiel, G., **Hu, C.D.**, and Li, M. Opposing role for ATF2 and c-Fos in c-Jun-mediated apoptosis induced by

- potassium deprivation in cerebellar granule neurons. *Mol. Cell. Biol.* 29:2431-2442 (2009)
39. Xu, Y., Yang W.H., Gerin, I., **Hu, C.D.**, Hammer, G.D., and Koenig, R.J. DAX-1 and steroid receptor RNA activator (SRA) function as transcriptional coactivators for steroidogenic factor-1 in steroidogenesis. *Mol. Cell. Biol.* 29:1719-1734 (2009)
  40. Hiatt, S.M., Duren, H.M. Shyu, Y., Ellis, R.E., Hisamoto, N., Matsumoto, K., Kariya, K., Kerppola, T.K., and **Hu, C.D.** *C. elegans* FOS-1 and JUN-1 regulate *plc-1* expression to control ovulation. *Mol. Biol. Cell* 20:3888-3895 (2009)
  41. Le, T.T, Duren, H.M., Slipchenko, M.N., **Hu, C.D.\***, and Cheng, J.X. Label-free quantitative analysis of lipid metabolism in living *Caenorhabditis elegans*. *J. Lipid Res.* 51:672-677 (2010) \*Co-Corresponding Author
  42. Kodama, Y. and **Hu, C.D.** An improved bimolecular fluorescence complementation assay with high signal-to-noise ratio. *Biotechniques*, 49:793-805 (2010)
  43. Xing, J., Wang, S., Lin, F., Pan, W., **Hu, C.D.**, and Zheng, C. A comprehensive characterization of interaction complexes of Herpes Simplex Virus type 1 ICP22, UL3, UL4 and UL20.5. *J. Virol.* 85:1881-1886 (2011)
  44. Deng, X., Elzey, B.D, Poulson, J.M., Morrison, W.B., Ko, S.C., Hahn, N.M., Ratliff, T.L., and **Hu, C.D.** Ionizing radiation induces neuroendocrine differentiation in vitro, in vivo and in human prostate cancer patients. *Am. J. Cancer. Res.* 1:834:844 (2011)
  45. Hsu, C. and **Hu, C.D.** Critical role of an N-terminal end nuclear export signal in regulation of ATF2 subcellular localization and transcriptional activity. *J. Biol. Chem.* 287:8621-8632 (2012)
  46. Young MM, Takahashi Y, Khan O, Park S, Hori T, Yun J, Sharma AK, Amin S, **Hu CD**, Zhang J, Kester M, Wang HG. Autophagosomal membrane serves as platform for intracellular death-inducing signaling complex (iDISC)-mediated caspase-8 activation and apoptosis. *J. Biol. Chem.* 287:12455-12688 (2012)
  47. Hsu, C. and **Hu, C.D.** Transcriptional activity of c-Jun is critical for the suppression of AR function. *Mol. Cell. Endocrinol.* 372:12-22 (2013)
  48. Zhang, H.T., Zhang, D., Zha, Z.G., and **Hu, C.D.** Transcriptional regulation of PRMT5 by NF-Y is required for cell growth and negatively regulated by the PKC/c-Fos signaling in prostate cancer cells. *Biochim Biophys Acta.- Gene Regulatory Mechanism* 1839:1330-1340 (2014)
  49. Suarez, C., Deng, X., and **Hu, C.D.** Targeting CREB inhibits radiation-induced neuroendocrine differentiation and increases radiation-induced cell death in prostate cancer cells. *Am J Cancer Res* 4:850-861 (2014)
  50. **Hu, C.D.**, Choo, R., and Huang, J. Neuroendocrine differentiation in prostate cancer: a mechanism of radioresistance and treatment failure. *Front Oncol* 5:90. doi: 10.3389/fonc.2015.00090
  51. Xu, D., Zhan, Y., Qi, Y., Cao, B., Bai, S., Xu, W., Gambhir, S.S., Lee, P., Sartor, O., Flemington, E.K., Zhang, H., **Hu, C.D.**, and Dong, Y. Androgen receptor splice variants dimerize to transactivate target genes. *Cancer Res* 75:3663-3671 (2015).

52. Vickman, R.E., Christ, S.A., Kerian, K., Eberlin, L., Coos, R.G., Burcham, G.N., Buhman, K.K., **Hu, C.D.**, Mesecar, A.D., Cheng, L., Ratliff, T.L. Cholesterol sulfonation enzyme, SULT2B1b, modulates AR and cell growth properties in prostate cancer. *Mol Cancer Res*, 14:776-786 (2016)
53. Deng, X., Shao, G., Zhang, H.T., Li, C., Zhang, D., Cheng, L., Elzey, B.D., Pili, R., Ratliff, T.L., Huang, J. and **Hu, C.D.** Protein arginin methyltransferase 5 functions as an epigenetic activator of the androgen receptor to promote prostate cancer cell growth. *Oncogene*, 36:1223-1231 (2017)
54. Zeng, L., Wang, W.H., Arrington, J., Shao, G., Geahlen, R.L., Hu, C.D. and Tao, W.A. Identification of upstream kinases by fluorescence complementation mass spectrometry. *ACS Central Sci* (2017)  
<http://pubs.acs.org/doi/pdf/10.1021/acscentsci.7b00261>

### Invited Book Chapters and Review Articles

55. **Hu, C.D.**, Grinberg A., and Kerppola TK. Visualization of protein interaction in living cells using bimolecular fluorescence complementation (BiFC) analysis. In *Current Protocol in Cell Biology* (ed. Bonifacino JS, Dasso M, Harford JB, Lippincott-Schwartz J, Yamada KM) pp. 21.3.1-21.3.21. Hoboken, John Willey & Sons, 2005
56. **Hu, C.D.** and Kerppola TK. Direct visualization of protein interactions in living cells using bimolecular fluorescence complementation analysis. *Protein-Protein Interactions* (ed. P. Adams and E. Golemis), Cold Spring Harbor Laboratory Press. Pp673-693, 2005.
57. **Hu, C.D.**, Grinberg, A.V. and Kerppola, T.K. Visualization of Protein Interactions in Living Cells Using Bimolecular Fluorescence Complementation (BiFC) Analysis. (ed. Coligan JE, Dunn BM, Speicher DW, Wingfield PT) *Curr. Protoc. Protein Sci.* 41:19.10.1-19.10.21. Hoboken, John Willey & Sons, 2005.
58. Shyu, Y., Akasaka, K., and **Hu, C.D.** Bimolecular fluorescence complementation (BiFC): A colorful future in drug discovery. *Sterling-Hoffman Life Science Journal*, July, 2007.  
<http://www.sterlinglifesciences.com/newsletter/articles/article006.html>.
59. Shyu, Y. and **Hu, C.D.** Recent advances in fluorescence complementation-based technologies. *Trends Biotechnol.* 26:622-630 (2008)
60. Vidi, P.APrzybyla, J., **Hu, C.D.**, and Watts, V.J. Visualization of G protein-couple receptor (GPCR) interactions in living cells using bimolecular fluorescence complementation (BiFC). *Current Protocol in Neuroscience*, Unit 5.29.1-5.29.15 April 2010.
61. Kodama, Y. and **Hu, C.D.** Bimolecular fluorescence complementation (BiFC): A 5-year update and future perspectives. *Biotechniques*, 53:285-298 (2012)
62. Ejendal, K.F.K., Conley, J.M., **Hu, C.D.** and Watts, V.J. Bimolecular fluorescence complementation analysis of G protein-coupled receptor dimerization in living cells. *Methods Enzymol.*, 521:259-279 (2013).

63. Kodama, Y. and **Hu, C.D.** Bimolecular fluorescence complementation (BiFC) analysis of *protein*-protein interaction: How to calculate signal-to-noise ratio. *Methods Navigator*, 2013 (In press).
64. Kodama, Y. and **Hu, C.D.** Bimolecular fluorescence complementation (BiFC) analysis of protein-protein interaction: How to calculate signal-to-noise ratio. *Methods Cell Biol.*, 113: 107-121 (2013).
65. **Hu, C.D.**, Choo, R., and Huang, J. Neuroendocrine differentiation in prostate cancer: a mechanism of radioresistance and treatment failure. *Front Oncol*, Apr 14;5:90. Doi: 10.3389/fonc.2015.00090 (2015)
66. Pratt, E.P.S., Owens, J.L., Hockerman, G.H., and **Hu, C.D.** Bimolecular fluorescence complementation (BiFC) analysis of protein-protein interactions and assessment of subcellular localization in live cells. High resolution imaging of proteins in tissues and cells: light and electron microscopy methods and protocols (Ed, Schwartzbach, S.D., Skalli, O., and Schikorski, T.), Springer (2016).