唐淳，2017 年 5 月

Curriculum Vitae

Chun Tang

Education

1994—1998	Zhejiang University	BS	Biology
1998—2003	University of Maryland, Baltimore County	PhD	Biochemistry

Work Experience

2003—2007	NIDDK, NIH	Postdoc
2008—2010	Department of Biochemistry, University of Missouri, Columbia	Assistant Professor
2010—	Wuhan Institute of Physics and Mathematics of the Chinese Academy of Sciences	Principal Investigator
2012—	CAS Key Laboratory of Magnetic Resonance in Biological Systems	Associate Director/ Director
2013—	Department of Pharmacology, Zhejiang University School of Medicine	Adjunct Professor
2015—	National Laboratory of Optoelectronics, Britton Chance for Biomedical Photonics	Adjunct Investigator

Grants Support

Funder	Project Name	Period	Amount	Role
Ministry of Science and Technology of China	Novel Method Development for Investigating Protein Dynamics	2013.1-2017.8	¥7.4M	Chief Scientist
Ministry of Science and Technology of China	Novel Methods in Biomolecular NMR	2016.7-2020.12	¥3.3M	Co-PI

Honor and Awards

“Outstanding Young Scientist”, National Natural Science Foundation

"International Early-Career Award", Howard Hughes Medical Institute

"Millions of Talent Project" National Pool, Ministry of Human and Society of China

"Governmental Special Allowance", State Department of China

"National Outstanding Yong Scholar", from the Central Organization Ministry (2013)

"Wang Tian-Juan" Award in Magnetic Resonance, from Chinese Physics Society (2012)

"Wu Si" Young Scientist Award, from Hubei Provincial Government (2013)

Publications

1. Gu T, Tang C, Xu ZD. (1999) Synthesis of C-60 nitroxide derivatives. ***Chin. Chem. Lett.*** 10: 95-96.
2. Gu T, Tang C, Xu ZD. (1999) Two methods to synthesize C-60 nitroxide derivatives. ***Fullerene Sci. Tech.*** 7: 297-303.
3. Baldisseri DM, Rustandi RR, Zhang ZS, Tang C, Bair CL, Landar A, Zimmer D B, Weber DJ. (1999) Letter to the Editor: H-1, C-13 and N-15 NMR sequence-specific resonance assignments for rat apo-S100A1 (alpha). ***J. Biomol. NMR*** 14: 91-92.
4. Lin J, Blake M, Tang C, Zimmer D, Rustandi RR, Weber DJ, Carrier F. (2001) Inhibition of p53 transcriptional activity by the S100B calcium-binding protein. ***J. Biol. Chem.*** 276: 35037-35041.
5. Gatanaga H, Suzuki Y, Tsang H, Yoshimura K, Kavlick M F, Nagashima K, Gorelick RJ, Mardy S, Tang C, Summers MF, Mitsuya H. (2002) Amino acid substitutions in Gag protein at non-cleavage sites are indispensable for the development of a high multitude of HIV-1 resistance against protease inhibitors. ***J. Biol. Chem.*** 277: 5952-5961.
6. Tang C, Ndassa Y, Summers MF. (2002) Structure of N-terminal 283-residue fragment of the HIV-1 Gag protein. ***Nat. Struct. Biol.*** 9: 537-543.

   * Accompanying news & views by Kern D.
7. Tang C, Loeliger E, Kinde I, Kyere S, Mayo K, Barklis E, Sun Y, Huang M, Summers MF. (2003) Antiviral inhibition of the HIV-1 capsid protein. ***J. Mol. Biol.*** 327: 1013-1020.
8. Tang C, Loeliger E, Luncsford P, Kinde I, Beckett D, Summers MF. (2004) Entropic switch regulates myristate exposure in the HIV-1 matrix protein. ***Proc. Natl. Acad. Sci. U.S.A.*** 101: 517-522.

   * Accompanying news & views by Resh MD.
   * Evaluated by *Faculty of 1000 Biology* as Must-Read.
9. Tang C, Williams DC, Ghirlando R, Clore GM. (2005) Solution structure of enzyme IIA(Chitobiose) from the N, N'-diacetylchitobiose branch of the Escherichia coli phosphotransferase system. ***J. Biol. Chem.*** 280: 11770-11780.

10. Suh JY[¶], Tang C[¶], Cai M, Clore GM. (2005) Visualization of the phosphorylated active site loop of the cytoplasmic B domain of the mannitol transporter II(Mannitol) of the Escherichia coli phosphotransferase system by NMR spectroscopy and residual dipolar couplings. ***J. Mol. Biol.*** 353: 1029-1036.

    [¶] Equal contribution.

11. Tang C, Iwahara J, Clore GM. (2005) Accurate determination of Leucine and Valine side-chain conformation using U-[^{15}N/^{13}C/^{2}H]/[^{1}H-(methine/methyl)-Leu/Val] isotope labeling, NOE pattern recognition, and methine Cγ-Hγ/Cβ-Hβ residual dipolar couplings: Application to the 34kDa enzyme IIA(Chitobiose). ***J. Biomol. NMR*** 33: 105-121.

12. Tang C, Clore GM. (2006) A simple and reliable approach to docking protein-protein complexes from very sparse NOE-derived intermolecular distance restraints. ***J. Biomol. NMR*** 36: 37-44.

13. Tang C, Iwahara J, Clore GM. (2006) Visualization of transient encounter complexes in protein-protein association. ***Nature*** 444: 383-386.

    * Accompanying news & views by Blundell TL and Fernandez-Recio J.
    * Featured in *Leading Edge* molecular biology selects of *Cell*.
    * Evaluated by *Faculty of 1000 Biology* as Must-Read.

14. Iwahara J, Tang C, Clore GM. (2007) Practical aspects of ^{1}H transverse paramagnetic relaxation enhancement measurements on macromolecules. ***J. Mag. Reson.*** 184: 185-195.

15. Kelly BN, Kyere S, Kinde I, Tang C, Howard BR, Robinson H, Sundquist WI, Summers MF, Hill CP. (2007) Structure of the antiviral assembly inhibitor CAP-1 complex with the HIV-1 CA protein. ***J. Mol. Biol.*** 373:355-366.

16. Tang C, Schwieters C, Clore GM. (2007) Open-to-closed transition in *apo* maltose-binding protein observed by paramagnetic NMR. ***Nature*** 449:1078-1082.

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17. Suh JY, Tang C, Clore GM. (2007) Role of electrostatic interactions in transient encounter complexes in protein-protein association investigated by paramagnetic relaxation enhancement. ***J. Am. Chem. Soc.*** 129:12954-12955.

18. Clore GM, Tang C, Iwahara J. (2007) Elucidating transient macromolecular interactions using paramagnetic relaxation enhancement. ***Curr. Opin. Struct. Biol.*** 17:603-616.

19. Tang C, Ghirlando R, Clore GM. (2008) Visualization of transient ultra-weak protein self-association in solution using paramagnetic relaxation enhancement. ***J. Am. Chem. Soc.*** 130:4048-4056.

20. Kim YC, Tang C, Clore GM, Hummer G. (2008) Replica exchange simulations of transient encounter complexes in protein-protein association. ***Proc. Natl. Acad. Sci. U.S.A.*** 105:12855-12860.

    * Evaluated by *Faculty of 1000 Biology* as Recommended.

21. Tang C, Louis JM, Anita A, Suh JY, Clore GM. (2008) Visualizing transient events in N-terminal auto-processing of HIV-1 protease. ***Nature*** 455:693-696.

    * Evaluated by *Faculty of 1000 Biology* as Must-Read.

22. Yu DM, Volkov AN, Tang C[#]. (2009) Characterizing Dynamic Protein-Protein Interactions Using. Differentially Scaled Paramagnetic Relaxation Enhancement. ***J. Am. Chem. Soc.*** 131: 17291-17297.

23. Rathinavelan T, Tang C, De Guzman RN. (2011) Characterization of the interaction betweenthe Salmonella type III secretion system tip protein SipD and the needle protein PrgI by paramagnetic relaxation enhancement. ***J. Biol. Chem.*** 286: 4922-4930.

24. Liu Z, Tang C[#]. (2011) Paramagnetic Relaxation Enhancement -A tool for Visualizing Transient Protein Structures. ***Chin. J. Mag. Reson.*** 28: 301-316. (invited review)

25. Liu Z, Zhang WP, Xing Q, Ren XF, Liu ML, Tang C[#]. (2012) Noncovalent Dimerization of Ubiquitin. ***Angew. Chem. Intl. Ed.*** 51:469-472.

    * selected as *"hot paper"*

26. Wang Y, Tang C, Wang E, Wang J. Exploration of Multi-State Conformational Dynamics and Underlying Global Functional Landscape of Maltose Binding Protein. ***PLoS Comput. Biol.*** 8:e1002471.

27. Jiang B, Luo F, Ding Y, Sun P, Zhang X, Jiang L, Li C, Mao XA, Yang D, Tang C, Liu M. (2013) NASR: An Effective Approach for Simultaneous Noise and Artifact Suppression in NMR Spectroscopy. ***Anal Chem.*** 85:2523-2528.

28. Li CG, Tang C, Liu ML. (2013) Protein dynamics elucidated by NMR technique. ***Protein & Cell.*** 10:726-730

29. Zhao, B., Zhang, M., Han, X., Zhang, X. Y., Xing, Q., Dong, X., Shi, Q. J., Huang, P., Lu, Y. B., Wei, E. Q., Xia, Q., Zhang, W. P., and Tang, C. (2013) Cerebral ischemia is exacerbated by extracellular nicotinamide phosphoribosyltransferase via a non-enzymatic mechanism. ***Plos One*** 8. 8(12):e85403

30. Coffman, K., Yang, B., Lu, J., Tetlow, A. L., Pelliccio, E., Lu, S., Guo, D. C., Tang, C., Dong, M. Q., and Tamanoi, F. (2014) Characterization of the Raptor/ 4E-BP1 Interaction by chemical cross- linking coupled with mass spectrometry analysis. ***J Biol Chem*** 289, 4723-4734.

31. Gu, X. H., Gong, Z., Guo, D. C., Zhang, W. P., and Tang, C. (2014) A decadentate Gd(III)-coordinating paramagnetic cosolvent for protein relaxation enhancement measurement. ***J Biomol NMR*** 58, 149-154.

32. Liu, Z., Gong, Z., Guo, D. C., Zhang, W. P., and Tang, C. (2014) Subtle dynamics of holo glutamine binding protein revealed with a rigid paramagnetic probe. ***Biochemistry*** 53, 1403-1409.

33. Rathinavelan, T., Lara-Tejero, M., Lefebre, M., Chatterjee, S., McShan, A. C., Guo, D. C., Tang, C., Galan, J. E., and De Guzman, R. N. (2014) NMR model of prgI-sipD

interaction and its implications in the needle-tip assembly of the salmonella type III secretion system. ***J Mol Biol*** 426, 2958-2969.

34. Zhang, Z., Zhang, T. L., Wang, S. S., Gong, Z., Tang, C., Chen, J. Y., and Ding, J. P. (2014) Molecular mechanism for Rabex-5 GEF activation by Rabaptin-5. ***eLife,*** 3:e02687.
35. Wang, Y., Tang, C., Wang, E. K., and Wang, J. (2014) Polyubiquitin chain linkage topology selects the functions from the underlying binding landscape. ***Plos Comput Biol*** 10(7):e1003691.
36. Xing, Q., Huang, P., Yang, J., Sun, J. Q., Gong, Z., Dong, X., Guo, D. C., Chen, S. M., Yang, Y. H., Wang, Y., Yang, M. H., Yi, M., Ding, Y. M., Liu, M. L., Zhang, W. P., and Tang, C. (2014) Visualizing an ultra-weak protein-protein interaction in phosphorylation signaling. ***Angew Chem Int Ed*** 53, 11501-11505. (hot paper, back cover)
37. X.-Q. Zhang., J.-T. Lu., W.-X. Jiang., Y.-B.Lu., M. Wu., E.-Q. Wei., W.-P. Zhanga., and Tang, C. (2015) NAMPT inhibitor and metabolite protect mouse brain from cryoinjury through distinct mechanisms. ***Neuroscience*** 291**,** 230-40.
38. Gong Z., Charles D. S., and Tang, C. (2015) Conjoined use of EM and NMR in RNA structure refinement. ***Plos One*** 10:e0120445.
39. Liu, Z., Gong, Z., Dong X., and Tang, C. (2015) Transient protein-protein interactions visualized by solution NMR. ***BBA Proteins and Proteomics***, doi:10.1016/j.bbapap.2015.04.009 (invited review)
40. Liu, Z., Gong, Z., Jiang, W. X., Yang, J., Zhu, W. K., Guo, D. C., Zhang, W. P., Liu, M. L., and Tang, C**.** (2015) Lys63-linked ubiquitin chain adopts multiple conformational states for specific target recognition. ***eLife***, 4:e05767.
41. Gong Z, Ding YH, Dong X, Liu N, Zhang EE, Dong MQ, Tang C. (2016) Visualizing the ensemble structures of protein complexes using chemical cross-linking coupled with mass spectrometry. ***Biophys. Rep***. *doi*: 10.1007/s41048-015-0015-y.
42. Jiang WX, Dong X, Jiang J, Yang YH, Yang J, Lu YB, Fang SH, Wei EQ, Tang C, Zhang WP. (2016) Specific cell surface labeling of GPCRs using split GFP. ***Sci. Rep***. doi: 10.1038/srep20568
43. Liu Z. and Tang C. (2016) Ensemble structure description of Lys63-linked diubiquitin. ***Data Brief***, doi:10.1016/j.dib.2016.02.003.
44. Fang J, Cheng J, Wang J, Zhang Q, Liu M, Gong R, Wang P, Zhang X, Feng Y, Lan W, Gong Z, Tang C, Wong J, Yang H, Cao C, Xu Y**.** (2016) Hemi-methylated DNA opens a closed conformation of UHRF1 to facilitate its histone recognition. ***Nature Commun***. 5;7:11197.
45. Wang X, Feng J, Xue Y, Guan Z, Zhang D, Liu Z, Gong Z, Wang Q, Huang J, Tang C, Zou T, Yin P. (2016) Structural basis of N^6-adenosine methylation by the METTL3–METTL14 complex. ***Nature*** 534:575-578.

46. Zhang J, Liu N, Cacho RA, Gong Z, Liu Z, Qin W, Tang C, Tang Y, Zhou J. (2016) Structural basis of nonribosomal peptide macrocyclization in fungi. ***Nature Chem. Biol.*** 12:1001-1003.
47. Gong Z, Gu XH, Guo DC, Wang J, Tang C. (2017) Protein Structural Ensembles Visualized by Solvent Paramagnetic Relaxation Enhancement. ***Angew. Chem. Int. Ed.*** 56:1002-1006.
48. Ding YH, Gong Z, Dong X, Liu K, Liu Z, Liu C, He SM, Dong MQ, Tang C. (2017) ***J. Biol. Chem.*** 292:1187-1196.

Invited Talks

Keystone Symposium Frontiers in Structural Biology (Steamboat, Colorado, 2008); Great Plains Annual Symposium on Protein NMR (Lawrence, Kansas, 2008); Gordon Research Conference on Biomolecular Interactions and Methods (Galveston, Texas, 2010); Federation of European Biochemical Societies Multidisciplinary Frontiers of Magnetic Resonance (EMAR) workshop on paramagnetic tagging (Seville, Spain, 2010); 16th Chinese National Magnetic Resonance Meeting (Haikou, Hainan Province, China); Academia Sinica magnetic resonance workshop (Taipei, Taiwan, 2011); Beijing Conference for experimental instrumental analysis (Beijing, 2011); International Biophysics Congress (Beijing 2011); Korean Magnetic Resonance Society meeting (Jeju Island, Korea, 2012); 16th Chinese National Magnetic Resonance Meeting (Xiamen, Fujian Province, China, 2012); 4th Chinese Structural Biology Meeting (Chongqing, China, 2013); Asia-Pacific NMR meeting (Brisbane, Australia, 2013); Chinese Biochemistry and Molecular Conference (Xiamen, Fujian Province, China, 2014); International Society on Magnetic Resonance meeting (Shanghai, 2015); 4th Biophysical Chemistry Conference (Hefei 2016); International Conference of Magnetic Resonance in Biological Systems (Kyoto, 2016); Asian-Pacific NMR meeting (Bangalore, 2017);