

## CURRICULUM VITAE

**Qiyi Tang 唐七义, Ph.D.**

**Associate Professor (Tenured)**

**Department of Microbiology**

**Howard University College of Medicine**

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### Education

- 1993 – 1997 Ph. D.** Virology and Immunology  
Peking Union Medical College and Chinese Academy of Medical Science  
(PUMC & CAMS), Beijing, China  
*Thesis title:* Construction of Canine Adenoviral Vector for Rabies Virus Vaccine  
Mentor: Fang chow Gu 顾方舟 (then president of PUMC & CAMS)
- 1987 – 1990 M.S.** Microbiology, Immunology  
Guiyang Medical College, Guiyang, China  
*Thesis title:* Study on the action of Astragalus membranaceus (an herb used in traditional Chinese medicine) on HSV-1
- 1982 – 1987 M.D.** Medicine  
Anhui Medical College, Hefei, China

### Postgraduate Training

- 1999–2004** Postdoctoral fellow, The Wistar Institute, Philadelphia, PA  
Research: ND10 and DNA viruses: SV40, cytomegaloviruses, and HSV-1  
Mentor: Gerd G. Maul (named as Father of ND10)
- 1998–1999** Postdoctoral research fellow, UMDNJ, New Jersey Medical School  
Research: IL-18 production in patients with multiple sclerosis

### Employment History

- 2015 - Present** Tenured Associate Professor, Department of Microbiology  
Howard University College of Medicine, Washington, DC
- 2013-2014** Tenured Associate professor, Ponce School of Medicine, Ponce, PR  
Research: interaction of viruses and host; mechanisms of viral transmission;  
reactivation of tumor viruses

- 2007-2012** Tenure track Assistant professor, Ponce School of Medicine, Ponce, PR  
Research: interaction of viruses and host
- 2004-2007** Staff scientist, The Wistar Institute, Philadelphia, PA  
Research: ND10 and DNA viruses, emphasis on cytomegaloviruses and KSHV
- 1990-1992** Department of Microbiology and Immunology, Guiyang Medical College, China  
Research: Isolation of L-type bacteria and mycoplasma from patients with prostatitis;  
Physiology of L-type bacteria

### **Professional Society Memberships**

- 2000 American Society for Microbiology (full member— membership number: 56488521)
- 2001 The American Society for Biochemistry and Molecular Biology (full member—member number: 32045M)
- 2010 - Present: The Editorial Board of World Journal of Virology (*WJV*)
- 2016 – Present: Editor-in-Chief, Journal of applied Microbiology and Biochemistry
- 2011 - Present: The Editorial Board of the Scientific World JOURNAL
- 2012 - Present: Editorial Board member for Virology Discovery
- 2012 - Present: Editor for New Journal of Science
- 2011 - Present: Editorial Board member for Journal of Viruses

### **Honors and Awards**

- 2019 Recognized by the Peking Union Medical College (PUMC) as a visiting professor
- 2018 Awarded by Howard University College of medicine as the outstanding faculty researcher of the year
- 2017 Honored by Anhui Medical University as a distinguished professor
- 2009 Awarded by Puerto Rico American Cancer Society (ACS) as the First researcher in Puerto Rico to receive an ACS Scholar grant, San Juan, PR (September 27, 2009)
- 2006 Travel award for the 31st Annual International Herpesvirus Workshop in Seattle, Washington (July 26-31, 2006)
- 2005 Travel award for 10th International CMV/Betaherpesvirus Workshop in Williamsburg, Virginia (April 24-29, 2005)
- 2003 Travel award for 28th International Herpesvirus Workshop, Madison, Wisconsin (July 26-31, 2003)

### **Administrative Service**

#### **Institutional Service**

- 2015- Present: Chairperson of IBC (institutional Biosafety Committee) at Howard University: organize the IBC meeting every month and has reviewed more than 50 protocols.
- 2016- Present: Member of Institutional Review Board (IRB) at Howard University

#### **Local and National Service**

2010 - Present: Cluster co-leader of Infectious and Immune Diseases (IID) in RTRN (RCMI Translational Research Network) of USA, organize the national RTRN IID meeting monthly to help investigators to establish collaboration within RTRN.

### **Training-related Progress and Accomplishments**

Thesis Committee participation: Committee of Dr. Zhen Zhang's Thesis, UMDNJ, New Jersey.  
Committee of Dr. Anca Selariu's Thesis, UMDNJ, New Jersey

### **Teaching Service**

Graduate: Molecular Biology and Virology

Medical and Dental students: Medical Virology

Undergraduate: Cell biology, immunology, microbiology, molecular biology

**2015-** Teaching Virology at Howard University  
the Graduate School: 5 courses, 4 hours/week in classroom, 4-8 students  
College of Medicine: 3 courses, 2 hours/week in classroom, 110 students  
College of Dentistry: 2 courses, 3 hours/week in classroom, 70 students

**2007-2014** Teaching Virology at Ponce School of Medicine,  
Graduate students: 8 courses, 4 hours/week in classroom, 5 students  
Medical Students: 5 courses, 4 hours/week in classroom, 60-70 students  
Speaker of RISE program: 12 courses, 2 hours/week in classroom, 8-12 students

**1990-1992** Teaching microbiology and immunology to third-year medical students  
(Guiyang Medical College, China)  
Medical Students: 5 courses, 4 hours/week in classroom, 160-200 students

### **Grant Support**

#### **Active Grants**

**(1)** Molecular Neuro-pathogenesis of Congenital Cytomegalovirus Infection

PI Name: Tang, Qiyi

Agency: NIH/NIGMS/NIAID \$377,500/year for 4 years Total: \$1,510,000.00

ID number 2SC1A1112785-05

Period: 08/07/2018 to 07/31/2022

This proposal is to know how congenital CMV infection causes neural development defects in a mouse model

**(2)** The Situ Structures Of Three Components Essential To Human Cytomegalovirus

PI Name: Hong Z. Zhou

Role: co-Investigator

Agency: NIH, subcontractor to Dr. Qiyi Tang: \$73,388.00 per year

ID number R01DE028583-01

Period: 04/01/2019 – 03/31/2024

**(3) In vitro and in vivo studies of Cytomegalovirus MIE gene regulation**

PI Name: Tang, Qiyi

Agency: NIH/NIGMS/NIAID \$324,000/year for 4 years Total: \$1,296,000

ID number 1SC1AI112785-01

Period: 04/01/2015 to 03/31/2019

This proposal is to know how MIE gene splicing is regulated and how to control viral replication through affecting MIE gene splicing regulation.

**(4) Human Cytomegalovirus Genomic Diversity and Neural Disorders in Neonates**

PI: Qiyi Tang

Agency: RCM/NIMHD/NIH

\$50,000/year for 2 years

Period: 07/01/2017 to 06/30/2019

**Pending Grants**

**(1) In situ structures of three components essential to human cytomegalovirus pathogenesis: genome-packaging machinery, capsid-associated tegument and prefusion glycoprotein complexes**

NIH R01 DE028583-01

Qiyi Tang Role: co-Investigator Scored 11%

PI: Hong Z. Zhou

Qiyi Tang Subcontract \$50,000 per year for 5 years

4/1/19-3/31/24

Agency: NIHLA

**(2) Molecular Neuro-pathogenesis of Congenital Cytomegalovirus Infection**

NIH R01 submitted on Feb 5<sup>th</sup>, 2018

coPIs: Qiyi Tang (contact PI), Koko Ishizuka (coPI, JHMS)

\$480,000 per year, for 5 years

**(3) Notch pathway and miRNA in ZIKV-caused neural disorders**

NIH R21 submitted on August 8th, 2018

PI – Qiyi Tang

\$275,000/2years

**Completed Grants**

**(1) Towards Blocking the Sexual Transmission of Herpesviruses**

PI: Qiyi Tang

Agency: Charles and Mary Latham Fund

\$15,000/year for 2 years

Period: 01/01/2016 to 12/30/2017

**(2) Functions of RTA and K8 in KSHV reactivation**

PI: Qiyi Tang

Agency: American Cancer Society, Research Scholar Grant 117448-RSG-09-289-01- MPC \$881,000

Period: 01/01/2010 to 12/31/2014

This proposal aims to elucidate the functions of K8 and RTA of KSHV.

**(3) Early gene regulation of Cytomegalovirus**

PI: Qiyi Tang

Agency: NIH/NIMHD

Grant Number U54 MD008149, \$50,000

Period: 07/01/2013 to 06/30/2014

This proposal aims to understand how the early genes of cytomegalovirus are regulated.

**(4) MIE gene splicing is a new target for HCMV Caused Disease**

PI: Qiyi Tang

Agency: NIH/NCRR,

pilot grant of RCMI 2G12RR003050 \$100,000 per year for 5 years

Period: 01/01/2009 to 12/31/2013

This proposal aims to develop anti-sense micro RNA to interfere with HCMV MIE gene splicing To inhibit MIE gene expression and hence viral replication.

**(5) A functional link between K8 SUMOylation and KSHV reactivation**

PI: Qiyi Tang Grant Number: IRG-92-032-13 \$30,000

Agency: American Cancer Society subcontract H.

Lee Moffitt sub award # 60-14599-01-01-S6

Period: 1/1/2009 – 12/31/2010

**(6) Epigenetic studies of Kaposi's Sarcoma-associated Herpesvirus (KSHV).**

PI: Qiyi Tang

Agency: NIH/NCRR

Grant Number U54RR022762, \$50,000

Period: 09/01/2010 to 08/31/2011

This proposal aims to elucidate the mechanisms of KSHV reactivation.

**Publications (# denotes corresponding author)**

**Link:**

<https://www.ncbi.nlm.nih.gov/sites/myncbi/1D5LPYBEm6O5m/bibliography/49236893/public/?sort=date&direction=ascending>

**1:** Ullah H., Hou W., Dakshanamurthy S. and Tang Q.<sup>#</sup>, Host targeted antiviral (HTA): functional inhibitor compounds of scaffold protein RACK1 inhibit herpes simplex virus proliferation Oncotarget 2019 May 14 pii: 10:3209-3226 doi.org/10.18632/oncotarget.26907

**2.** Hu M, Armstrong N, Seto E, Li W, Zhu F, Wang PC, Tang Q.<sup>#</sup> Sirtuin 6 Attenuates Kaposi's Sarcoma-associated herpesvirus (KSHV) Reactivation via Suppressing the Ori-Lyt Activity and Expression of RTA. J Virol. 2019 Jan 16. pii: JVI.02200-18. doi: 10.1128/JVI.02200-18. [Epub ahead of print] PubMed PMID: 30651359.

**3:** Hou W, Cruz-Cosme R, Wen F, Ahn JH, Reeves I, Luo MH, Tang Q.<sup>#</sup> Expression of Human Cytomegalovirus IE1 Leads to Accumulation of Mono-SUMOylated PML That Is Protected from

Degradation by Herpes Simplex Virus 1 ICP0. *J Virol.* 2018 Nov 12;92(23). pii: e01452-18. doi: 10.1128/JVI.01452-18. Print 2018 Dec 1. PubMed PMID: 30258013. Related citations

**4:** Yuan L, Liu X, Zhang L, Zhang Y, Chen Y, Li X, Wu K, Cao J, Hou W, Que Y, Zhang J, Zhu H, Yuan Q, Tang Q<sup>#</sup>, Cheng T<sup>#</sup>, Xia N. Optimized HepaRG is a suitable cell source to generate the human liver chimeric mouse model for the chronic hepatitis B virus infection. *Emerg Microbes Infect.* 2018 Aug 10;7(1):144. doi: 10.1038/s41426-018-0143-9. PubMed PMID: 30097574; PubMed Central PMCID: PMC6086841. Free full textRelated citations

**5:** Yuan L, Liu X, Zhang L, Li X, Zhang Y, Wu K, Chen Y, Cao J, Hou W, Zhang J, Zhu H, Yuan Q, Tang Q<sup>#</sup>, Cheng T<sup>#</sup>, Xia N. A Chimeric Humanized Mouse Model by Engrafting the Human Induced Pluripotent Stem Cell-Derived Hepatocyte-Like Cell for the Chronic Hepatitis B Virus Infection. *Front Microbiol.* 2018 May 8;9:908. doi: 10.3389/fmicb.2018.00908. eCollection 2018. PubMed PMID: 29867819; PubMed Central PMCID: PMC5952038. Free full textCited in PMCRRelated citations

**6:** Yang B, Liu XJ, Yao Y, Jiang X, Wang XZ, Yang H, Sun JY, Miao Y, Wang W, Huang ZL, Wang Y, Tang Q, Rayner S, Britt WJ, McVoy MA, Luo MH, Zhao F. WDR5 Facilitates Human Cytomegalovirus Replication by Promoting Capsid Nuclear Egress. *J Virol.* 2018 Apr 13;92(9). pii: e00207-18. doi: 10.1128/JVI.00207-18. Print 2018 May 1. PubMed PMID: 29437978; PubMed Central PMCID: PMC5899187. Free full textRelated citations

**7:** Yang L, Wang R, Yang S, Ma Z, Lin S, Nan Y, Li Q, Tang Q, Zhang YJ. Karyopherin Alpha 6 Is Required for Replication of Porcine Reproductive and Respiratory Syndrome Virus and Zika Virus. *J Virol.* 2018 Apr 13;92(9). pii: e00072-18. doi: 10.1128/JVI.00072-18. Print 2018 May 1. PubMed PMID: 29444946; PubMed Central PMCID: PMC5899184. Free full textCited in PMCRRelated citations

**8:** Li S, Armstrong N, Zhao H, Hou W, Liu J, Chen C, Wan J, Wang W, Zhong C, Liu C, Zhu H, Xia N, Cheng T, Tang Q.<sup>#</sup> Zika Virus Fatally Infects Wild Type Neonatal Mice and Replicates in Central Nervous System. *Viruses.* 2018 Jan 22;10(1). pii: E49. doi: 10.3390/v10010049. PubMed PMID: 29361773; PubMed Central PMCID: PMC5795462. Free full textCited in PMCRRelated citations

**9:** Zhu R, Cheng T, Yin Z, Liu D, Xu L, Li Y, Wang W, Liu J, Que Y, Ye X, Tang Q, Zhao Q, Ge S, He S, Xia N. Serological survey of neutralizing antibodies to eight major enteroviruses among healthy population. *Emerg Microbes Infect.* 2018 Jan 10;7(1):2. doi: 10.1038/s41426-017-0003-z. PubMed PMID: 29323107; PubMed Central PMCID: PMC5837151. Free full textCited in PMCRRelated citations

**10:** Perez KJ, Martínez FP, Cosme-Cruz R, Perez-Crespo NM, Tang Q.<sup>#</sup> Correction for Perez et al., "A Short *cis*-Acting Motif in the M112-113 Promoter Region Is Essential for IE3 To Activate M112-113 Gene Expression and Is Important for Murine Cytomegalovirus Replication". *J Virol.* 2017 Nov 14;91(23). pii: e01527-17. doi: 10.1128/JVI.01527-17. Print 2017 Dec 1. PubMed PMID: 29138332; PubMed Central PMCID: PMC5686729. Free full textRelated citations

**11:** Cheng S, Jiang X, Yang B, Wen L, Zhao F, Zeng WB, Liu XJ, Dong X, Sun JY, Ming YZ, Zhu H, Rayner S, Tang Q, Fortunato E, Luo MH. Infected T98G glioblastoma cells support human cytomegalovirus reactivation from latency. *Virology.* 2017 Oct;510:205-215. doi: 10.1016/j.virol.2017.07.023. Epub 2017 Jul 24. PubMed PMID: 28750324. Cited in PMCRRelated citations

- 12:** Hou W, Cruz-Cosme R, Armstrong N, Obwolo LA, Wen F, Hu W, Luo MH, Tang Q.<sup>#</sup> Molecular cloning and characterization of the genes encoding the proteins of Zika virus. *Gene*. 2017 Sep 10;628:117-128. doi: 10.1016/j.gene.2017.07.049. Epub 2017 Jul 15. PubMed PMID: 28720531; PubMed Central PMCID: PMC5729740. Free full textCited in PMCRelated citations
- 13:** Liu XJ, Yang B, Huang SN, Wu CC, Li XJ, Cheng S, Jiang X, Hu F, Ming YZ, Nevels M, Britt WJ, Rayner S, Tang Q, Zeng WB, Zhao F, Luo MH. Human cytomegalovirus IE1 downregulates Hes1 in neural progenitor cells as a potential E3 ubiquitin ligase. *PLoS Pathog*. 2017 Jul 27;13(7):e1006542. doi: 10.1371/journal.ppat.1006542. eCollection 2017 Jul. PubMed PMID: 28750047; PubMed Central PMCID: PMC5549770. Free full textCited in PMCRelated citations
- 14:** Hou W, Armstrong N, Obwolo LA, Thomas M, Pang X, Jones KS, Tang Q.<sup>#</sup> Determination of the Cell Permissiveness Spectrum, Mode of RNA Replication, and RNA-Protein Interaction of Zika Virus. *BMC Infect Dis*. 2017 Mar 31;17(1):239. doi: 10.1186/s12879-017-2338-4. PubMed PMID: 28359304; PubMed Central PMCID: PMC5374689. Free full textCited in PMCRelated citations
- 15:** Armstrong N, Hou W, Tang Q.<sup>#</sup> Biological and historical overview of Zika virus. *World J Virol*. 2017 Feb 12;6(1):1-8. doi: 10.5501/wjv.v6.i1.1. Review. PubMed PMID: 28239566; PubMed Central PMCID: PMC5303855. Free full textCited in PMCRelated citations
- 16:** Hou W, Torres L, Cruz-Cosme R, Arroyo F, Irizarry L, Luciano D, Márquez A, Rivera LL, Sala AL, Luo MH, Tang Q.<sup>#</sup> Two Polypyrimidine Tracts in Intron 4 of the Major Immediate Early Gene Are Critical for Gene Expression Switching from IE1 to IE2 and for Replication of Human Cytomegalovirus. *J Virol*. 2016 Jul 27;90(16):7339-7349. doi: 10.1128/JVI.00837-16. Print 2016 Aug 15. PubMed PMID: 27252533; PubMed Central PMCID: PMC4984657. Free full textCited in PMCRelated citations
- 17:** Cai H, Luo M, Wang Y, Tang Q.<sup>#</sup> Diversity of and Implications from the Viral Genomes and Viral Proteins of Zika Virus. *Journal of Virology & Antiviral Research*. 2016 August; 5(3):1-4.
- 18:** Tankou S, Ishii K, Elliott C, Yalla KC, Day JP, Furukori K, Kubo KI, Brandon NJ, Tang Q, Hayward G, Nakajima K, Houslay MD, Kamiya A, Baillie G, Ishizuka K, Sawa A. SUMOylation of DISC1: a potential role in neural progenitor proliferation in the developing cortex. *Mol Neuropsychiatry*. 2016 May;2(1):20-27. Epub 2016 Mar 15. PubMed PMID: 27525255; PubMed Central PMCID: PMC4979612. Free full textCited in PMCRelated citations
- 19:** Li XJ, Liu XJ, Yang B, Fu YR, Zhao F, Shen ZZ, Miao LF, Rayner S, Chavanas S, Zhu H, Britt WJ, Tang Q, McVoy MA, Luo MH. Human Cytomegalovirus Infection Dysregulates the Localization and Stability of NICD1 and Jag1 in Neural Progenitor Cells. *J Virol*. 2015 Jul;89(13):6792-804. doi: 10.1128/JVI.00351-15. Epub 2015 Apr 22. PubMed PMID: 25903338; PubMed Central PMCID: PMC4468470. Free full textCited in PMCRelated citations
- 20:** Torres L, Ortiz T, Tang Q.<sup>#</sup> Enhancement of herpes simplex virus (HSV) infection by seminal plasma and semen amyloids implicates a new target for the prevention of HSV infection. *Viruses*. 2015 Apr 20;7(4):2057-73. doi: 10.3390/v7042057. PubMed PMID: 25903833; PubMed Central PMCID: PMC4411690. Free full textCited in PMCRelated citations
- 21:** Fu YR, Liu XJ, Li XJ, Shen ZZ, Yang B, Wu CC, Li JF, Miao LF, Ye HQ, Qiao GH, Rayner S, Chavanas S, Davrinche C, Britt WJ, Tang Q, McVoy M, Mocarski E, Luo MH. MicroRNA miR-21

attenuates human cytomegalovirus replication in neural cells by targeting Cdc25a. *J Virol.* 2015 Jan 15;89(2):1070-82. doi: 10.1128/JVI.01740-14. Epub 2014 Nov 5. PubMed PMID: 25378484; PubMed Central PMCID: PMC4300626. Free full textCited in PMCRelated citations

**22:** Torres L, Tang Q.<sup>#</sup> Immediate-Early (IE) gene regulation of cytomegalovirus: IE1- and pp71-mediated viral strategies against cellular defenses. *Virology*. 2014 Dec;29(6):343-52. doi: 10.1007/s12250-014-3532-9. Epub 2014 Nov 25. Review. PubMed PMID: 25501994; PubMed Central PMCID: PMC4654928. Free full textCited in PMCRelated citations

**23:** Martínez FP, Cruz R, Lu F, Plasschaert R, Deng Z, Rivera-Molina YA, Bartolomei MS, Lieberman PM, Tang Q.<sup>#</sup> CTCF binding to the first intron of the major immediate early (MIE) gene of human cytomegalovirus (HCMV) negatively regulates MIE gene expression and HCMV replication. *J Virol.* 2014 Jul;88(13):7389-401. doi: 10.1128/JVI.00845-14. Epub 2014 Apr 16. PubMed PMID: 24741094; PubMed Central PMCID: PMC4054410. Free full textCited in PMCRelated citations

**24:** Martínez FP, Tang Q.<sup>#</sup> Identification of cellular proteins that interact with human cytomegalovirus immediate-early protein 1 by protein array assay. *Viruses*. 2013 Dec 31;6(1):89-105. doi: 10.3390/v6010089. PubMed PMID: 24385082; PubMed Central PMCID: PMC3917433. Free full textCited in PMCRelated citations

**25:** Tang Q<sup>#</sup>, Roan NR, Yamamura Y. Seminal plasma and semen amyloids enhance cytomegalovirus infection in cell culture. *J Virol.* 2013 Dec;87(23):12583-91. doi: 10.1128/JVI.02083-13. Epub 2013 Sep 11. PubMed PMID: 24027327; PubMed Central PMCID: PMC3838150. Free full textCited in PMCRelated citations

**26:** Hui WH, Tang Q, Liu H, Atanasov I, Liu F, Zhu H, Zhou ZH. Protein interactions in the murine cytomegalovirus capsid revealed by cryoEM. *Protein Cell.* 2013 Nov;4(11):833-45. doi: 10.1007/s13238-013-3060-7. Epub 2013 Sep 4. PubMed PMID: 24006185; PubMed Central PMCID: PMC4875448. Free full textCited in PMCRelated citations

**27:** Rivera-Molina YA, Martínez FP, Tang Q<sup>#</sup>. Nuclear domain 10 of the viral aspect. *World J Virol.* 2013 Aug 12;2(3):110-22. doi: 10.5501/wjv.v2.i3.110. Review. PubMed PMID: 24255882; PubMed Central PMCID: PMC3832855. Free full textCited in PMCRelated citations

**28:** Perez KJ, Martínez FP, Cosme-Cruz R, Perez-Crespo NM, Tang Q<sup>#</sup>. A short cis-acting motif in the M112-113 promoter region is essential for IE3 to activate M112-113 gene expression and is important for murine cytomegalovirus replication. *J Virol.* 2013 Mar;87(5):2639-47. doi: 10.1128/JVI.03171-12. Epub 2012 Dec 19. Erratum in: *J Virol.* 2017 Nov 14;91(23):. PubMed PMID: 23255797; PubMed Central PMCID: PMC3571397. Free full textCited in PMCRelated citations

**29:** Rivera-Molina YA, Rojas BR, Tang Q<sup>#</sup>. Nuclear domain 10-associated proteins recognize and segregate intranuclear DNA/protein complexes to negate gene expression. *Virology*. 2012 Sep 28;9:222. doi: 10.1186/1743-422X-9-222. PubMed PMID: 23021128; PubMed Central PMCID: PMC3502357. Free full textCited in PMCRelated citations

**30:** Selariu A, Cheng T, Tang Q, Silver B, Yang L, Liu C, Ye X, Markus A, Goldstein RS, Cruz-Cosme RS, Lin Y, Wen L, Qian H, Han J, Dulal K, Huang Y, Li Y, Xia N, Zhu H. ORF7 of varicella-zoster virus is a neurotropic factor. *J Virol.* 2012 Aug;86(16):8614-24. doi: 10.1128/JVI.00128-12. Epub 2012 Jun



6. PubMed PMID: 22674980; PubMed Central PMCID: PMC3421744. Free full text Cited in PMCRelated citations

**31:** Martínez FP, Tang Q<sup>#</sup>. Leucine zipper domain is required for Kaposi sarcoma-associated herpesvirus (KSHV) K-bZIP protein to interact with histone deacetylase and is important for KSHV replication. *J Biol Chem*. 2012 May 4;287(19):15622-34. doi: 10.1074/jbc.M111.315861. Epub 2012 Mar 13. PubMed PMID: 22416134; PubMed Central PMCID: PMC3346108. Free full text Cited in PMCRelated citations

**32:** Liang Q, Deng H, Li X, Wu X, Tang Q, Chang TH, Peng H, Rauscher FJ 3rd, Ozato K, Zhu F. Tripartite motif-containing protein 28 is a small ubiquitin-related modifier E3 ligase and negative regulator of IFN regulatory factor 7. *J Immunol*. 2011 Nov 1;187(9):4754-63. doi: 10.4049/jimmunol.1101704. Epub 2011 Sep 21. PubMed PMID: 21940674; PubMed Central PMCID: PMC3197880. Free full text Cited in PMCRelated citations

**33:** Cosme-Cruz R, Martínez FP, Perez KJ, Tang Q<sup>#</sup>. H2B homology region of major immediate-early protein 1 is essential for murine cytomegalovirus to disrupt nuclear domain 10, but is not important for viral replication in cell culture. *J Gen Virol*. 2011 Sep;92(Pt 9):2006-19. doi: 10.1099/vir.0.033225-0. Epub 2011 Jun 1. PubMed PMID: 21632568; PubMed Central PMCID: PMC3353387. Free full text Cited in PMCRelated citations

**34:** Cosme RC, Martínez FP, Tang Q<sup>#</sup>. Functional interaction of nuclear domain 10 and its components with cytomegalovirus after infections: cross-species host cells versus native cells. *PLoS One*. 2011 Apr 28;6(4):e19187. doi: 10.1371/journal.pone.0019187. PubMed PMID: 21552525; PubMed Central PMCID: PMC3084273. Free full text Cited in PMCRelated citations

**35:** Huang Y, Tang Q, Nguyen M, Dulal K, Wang W, Zhu H. Histone deacetylase 3, not histone deacetylase 2, interacts with the major immediate early locus of human cytomegalovirus. *Virol J*. 2011 Mar 31;8:151. doi: 10.1186/1743-422X-8-151. PubMed PMID: 21453528; PubMed Central PMCID: PMC3077330. Free full text Cited in PMCRelated citations

**36:** Warden C, Tang Q, Zhu H. Herpesvirus BACs: past, present, and future. *J Biomed Biotechnol*. 2011;2011:124595. doi: 10.1155/2011/124595. Epub 2010 Oct 27. Review. PubMed PMID: 21048927; PubMed Central PMCID: PMC2965428. Free full text Cited in PMCRelated citations

**37:** Martínez FP, Cosme RS, Tang Q<sup>#</sup>. Murine cytomegalovirus major immediate-early protein 3 interacts with cellular and viral proteins in viral DNA replication compartments and is important for early gene activation. *J Gen Virol*. 2010 Nov;91(Pt 11):2664-76. doi: 10.1099/vir.0.022301-0. Epub 2010 Jul 14. PubMed PMID: 20631086; PubMed Central PMCID: PMC3052557. Free full text Cited in PMCRelated citations

**38:** Cheng B, Martínez FP, Katano H, Tang Q<sup>#</sup>. Evidence of inability of human cytomegalovirus to reactivate Kaposi's sarcoma-associated herpesvirus from latency in body cavity-based lymphocytes. *J Clin Virol*. 2009 Nov;46(3):244-8. doi: 10.1016/j.jcv.2009.07.025. Epub 2009 Sep 1. PubMed PMID: 19726225; PubMed Central PMCID: PMC2789304. Free full text Cited in PMCRelated citations

**39:** Hanson LK, Slater JS, Cavanaugh VJ, Newcomb WW, Bolin LL, Nelson CN, Fetters LD, Tang Q, Brown JC, Maul GG, Campbell AE. Murine cytomegalovirus capsid assembly is dependent on US22

family gene M140 in infected macrophages. *J Virol.* 2009 Aug;83(15):7449-56. doi: 10.1128/JVI.00325-09. Epub 2009 May 20. PubMed PMID: 19458005; PubMed Central PMCID: PMC2708628. Free full text Cited in PMC Related citations

**40:** Cosme RS, Yamamura Y, Tang Q<sup>#</sup>. Roles of polypyrimidine tract binding proteins in major immediate-early gene expression and viral replication of human cytomegalovirus. *J Virol.* 2009 Apr;83(7):2839-50. doi: 10.1128/JVI.02407-08. Epub 2009 Jan 14. PubMed PMID: 19144709; PubMed Central PMCID: PMC2655581. Free full text Cited in PMC Related citations

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