

Selected Publications

Bo Hang

Peer-Reviewed Papers:

1. Lambert MW, Tsongalis GJ, Lambert WC, **Hang B**, Parrish DD. (1992) Defective DNA endonuclease activities in Fanconi's anemia cells, complementation groups A and B. *Mutat Res.*, 273, 57-71.
2. Lambert MW, Feng S, Hang B, and Arbesfeld D (1992) Protein DNA interactions in repair of UVC irradiated DNA. *J. invest. Dermatol.*, 98, 555-
3. **Hang B**, Yeung AT, Lambert MW. (1993) A damage-recognition protein which binds to DNA containing interstrand cross-links is absent in Fanconi anemia, complementation group A cells. *Nucleic Acids Res.*, 21, 4187-92.
4. Kumaresan KR, **Hang B**, Lambert MW. (1995) Human endonucleolytic incision of DNA 3' and 5' to a site-directed psoralen monoadduct and interstrand cross-link. *J. Biol. Chem.*, 270, 30709-16.
5. Chenna A, **Hang B**, Rydberg B, Kim E, Pongracz K, Bodell WJ, Singer B. (1995) The benzene metabolite p-benzoquinone forms adducts with DNA bases that are excised by a repair activity from human cells that differs from an ethenoadenine glycosylase. *Proc. Natl. Acad. Sci. USA*, 92, 5890-4.
6. **Hang B**, Chenna A, Rao S, Singer B. (1996) 1,N⁶-ethenoadenine and 3,N⁴-ethenocytosine are excised by separate human DNA glycosylases. *Carcinogenesis*, 17, 155-7.
7. **Hang B**, Chenna A, Fraenkel-Conrat H, Singer B. (1996) An unusual mechanism for the major human AP endonuclease involving 5' cleavage of DNA containing a benzene-derived exocyclic adduct in the absence of an AP site. *Proc. Natl. Acad. Sci. USA*, 93, 13737-41.
8. Singer B, **Hang B**, Chenna A. (1996) New glycosylases for new endogenous DNA adducts. *Proc. Amer. Assoc. Canc. Res.*, 37, 645-6.
9. **Hang B**, Singer B, Margison GP, Elder RH. (1997) Targeted deletion of alkylpurine-DNA-N-glycosylase in mice eliminate repair of 1,N⁶-ethenoadenine and hypoxanthine but not of 3,N⁴-ethenocytosine or 8-oxoguanine. *Proc. Natl. Acad. Sci. USA*, 94, 12869-74.
10. **Hang B**, Rothwell DG, Sági J, Hickson ID, Singer B. (1997) Evidence for a common active site for cleavage of an AP site and the benzene-derived exocyclic adduct, 3,N⁴-benzetheno-dC, in the major human AP endonuclease. *Biochemistry*, 36, 15411-18.
11. **Hang B**, Chenna A, Sági J, Singer B. (1998) Differential repair of the benzene-derived adduct, 1,N⁶-benzetheno-dA, by the major human AP endonuclease HAP1 and *Escherichia coli* exonuclease III and endonuclease IV. *Carcinogenesis*, 19, 1339-43.
12. **Hang B**, Chenna A, Sági J, Singer B. (1998) Correlation between sequence-dependent glycosylase repair and the thermal stability of oligonucleotide duplexes containing 1,N⁶-ethenoadenine. *J. Biol. Chem.*, 273, 33406-13.
13. **Hang B**, Medina M, Fraenkel-Conrat H, Singer B. (1998) A 55-kDa protein isolated from human cells shows DNA glycosylase activity toward 3,N⁴-ethenocytosine and the G/T mismatch. *Proc. Natl. Acad. Sci. USA*, 95, 13561-66.
14. Sagi J, Chenna A, **Hang B**, Singer B. (1998) A single cyclic p-benzoquinone adduct can destabilize a DNA oligonucleotide duplex. *Chem Res Toxicol.*, 11, 329-34.
15. Sági J, **Hang B**, Singer B, (1999) Sequence dependent repair of synthetic AP sites in 15-mer and 35-mer oligomers: role of thermodynamic stability imposed by neighbor bases. *Chem. Res. Toxicol.*, 12, 917-23.
16. Rothwell DG, **Hang B**, Gorman MA, Freemont PS, Singer B, Hickson ID. (2000) Substitution of Asp 210 in HAP1 (APE/Ref-1) eliminates endonuclease activity but stabilizes substrate binding. *Nucleic Acids Res.*, 28, 2207-13.
17. Sagi J, Perry A, **Hang B**, Singer B. (2000) Differential destabilization of the DNA oligonucleotide double helix by a T.G mismatch, 3,N⁴-ethenocytosine, 3,N⁴-ethanocytosine, or an 8-

- (hydroxymethyl)-3,N⁴-ethenocytosine adduct incorporated into the same sequence contexts. *Chem Res Toxicol.*, 13, 839-45.
18. **Hang B**, Downing G, Guliaev AB, Singer B. (2002) Novel activity of *Escherichia coli* mismatch uracil glycosylase (MUG) excising 8-(hydroxymethyl)-3,N⁴-ethenocytosine, a potential product resulting from glycidaldehyde reaction. *Biochemistry*, 41, 2158-65.
 19. Singer B, Medina M, Wang Z, Guliaev AB, **Hang B**. (2002) 8-(hydroxymethyl) 3,N⁴-etheno-dC, a potential carcinogenic glycidaldehyde product, miscodes *in vitro* using mammalian polymerases. *Biochemistry*, 41, 1778-85.
 20. Guliaev AB, **Hang B**, Singer B. (2002) Structural insights by molecular dynamics simulations into differential repair efficiency for ethano-A vs. etheno-A adducts by the human alkylpurine-DNA-N-glycosylase (APNG). *Nucleic Acids Res.*, 30, 3778-87.
 21. **Hang B**, Chenna A, Guliaev AB, Singer B. (2003) Miscoding properties of 1,N⁶-ethanoadenine, a DNA adduct derived from reaction with the antitumor agent 1,3-bis(2-chloroethyl)-1-nitrosourea. *Mutat Res-Fundamental and Molecular Mechanisms of Mutagenesis*. 531(1-2), 191-203.
 22. Guliaev, AB, Singer B, **Hang B**. (2004) Chloroethylnitrosoureas-derived ethano adenine and cytosine adducts are substrates for *E. coli* glycosylases excising analogous etheno adducts. *DNA Repair*, 3, 1195-208.
 23. Guliaev AB, **Hang B**, Singer B. (2004) Structural insights by molecular dynamics simulations into specificity of the major human AP endonuclease toward the benzene-derived DNA adduct, pBQ-C. *Nucleic Acids Res.*, 32, 2844-52.
 24. **Hang B**. and Singer B. (2004) "Human thymine DNA glycosylase (TDG) and methyl-CpG-binding protein 4(MBD4) excise thymine glycol (Tg) from a Tg:G mispair..." (Condensation and Commentary), *Chem tracts-Biochem. & Mol. Biol.*, 17, 168-73.
 25. Xie Z, Zhang Y, Guliaev AB, Shen H, **Hang B**, Singer B, Wang Z. (2005) The p-benzoquinone DNA adducts derived from benzene are highly mutagenic. *DNA Repair*, 8, 1399-409.
 26. Wang P, Guliaev AB, Elder RH, **Hang B**. (2006) Alkylpurine-DNA-N-glycosylase excision of 7-(hydroxymethyl)-1,N⁶-ethanoadenine, a glycidaldehyde-derived DNA adduct. *DNA Repair*, 5, 23-31.
 27. Wang P, Guliaev AB, **Hang B**. (2006) Metal inhibition of human N-methylpurine-DNA glycosylase activity in base excision repair. *Toxicol Lett.*, 166, 237-47.
 28. **Hang B**, Guliaev AB. (2007) Substrate specificity of human thymine-DNA glycosylase on exocyclic cytosine adducts. *Chem Biol Interact.*, 165, 230-8.
 29. Chenna A, Gupta R, Bonala R, Johnson F. and **Hang B**. (2008) Synthesis of the fully protected phosphoramidite of the benzene-DNA adduct, N²-(4-hydroxyphenyl)-2'-doxyguanosine and incorporation of the later into DNA oligomers. *Nucleosides, Nucleotides & Nucleic Acids*, 27, 979-91.
 30. **Hang B**, Budworth H, Sarker AH, and Cooper PK. (2008) Functional interaction of human TDG with FMRP and XPG in base excision repair of T/G mismatches. *Environ. & Mol. Mutagen*, 49, 546-
 31. Rodriguez B, Yang Y, Guliaev AB, Chenna A, and **Hang B**. (2010) Benzene-derived N²-(4-hydroxyphenyl)-deoxyguanosine adduct: UvrABC nuclease incision and its conformation in DNA. *Toxicol Lett.* 193, 26-32.
 32. **Hang B**. (2010) Formation and repair of tobacco carcinogen-derived bulky DNA adducts. *J. Nucleic Acids*, Special issue: DNA Damage, Mutagenesis, and DNA Repair, Editors: Basu, A., Broyde, S., Iwai, S., and Kisker, C. Dec.
 33. Matt GE, Quintana PJE, Destailats H, Gundel LA, Mohamad S, Singer BC, Jacob III J, Benowitz N, Winickoff JP, Rehan V, Talbot P, Schick S, Samet J, Wang Y, **Hang B**, Martins-Green M, and Hovell MF. (2011) Thirdhand Tobacco Smoke: Emerging Evidence and Arguments for a Multidisciplinary Research Agenda. *Environ Health Perspect.*, 119, 1218–26.
 34. Ying Z, Patel A, Narayanaswami V, Hura G, **Hang B**, and Bielicki JK. (2011) HDL mimetic ATI-5261 forms an oligomeric assembly in solution that dissociates to active monomers upon dilution. *Biochemistry*, 50, 4068-76.

35. Dey S, Maiti AK, Hegde ML, Hegde PM, Boldogh I, Sarkar PS, Abdel-Rahman SZ, Sarker AH, **Hang B**, Xie JW, Tomkinson AE, Shen BH, Wang GH, Wu C, Yu DK, Lin DX, Cardenas V, and Hazra TK. (2012) Increased risk of lung cancer associated with a functionally impaired polymorphic variant of the human DNA glycosylase NEIL2. *DNA Repair*, 11, 570-8.
36. Guliaev AB, Cheng SP, and **Hang B**. (2012) Protein dynamics *via* computational microscope. *World J Methodol.*, 2(6):42-49.
37. **Hang B**, Sarker AH, Havel C, Saha H, Hazra TK, Schick S, Jacob III P, Rehan V, Chenna A, Sharan D, Sleiman M, Destailats H, and Gundel AL. (2013) Thirdhand smoke causes DNA damage in human cells. *Mutagenesis*, 28, 381-91.
38. Chen M, Tang R, Fu G, Xu B, Zhu PG, Qiao SL, Chen XJ, Xu B, Qin YF, Lu CC, **Hang B**, Xia YK, and Wang XR (2013) Association of exposure to phenols and idiopathic male infertility. *J. Hazardous Materials*, 250-251C, 115-21.
39. Xia Y, Chen M, Zhu P, Lu C, Fu G, Zhou X, Chen D, Wang H, **Hang B**, Wang S, Zhou Z, Sha J, Wang C. (2013) Urinary phytoestrogen levels related to idiopathic male infertility in Chinese Men. *Environment International*. 59,161-7.
40. Wu W, Qin Y, Li L, Dong J, Dai J, Lu C, Guo X, Zhao Y, Zhu Y, Zhang W, **Hang B**, Sha J, Shen H, Xia Y, Hu Z, Wang X. (2013) Genome-wide microRNA expression profiling in idiopathic non-obstructive azoospermia: significant up-regulation of miR-141, miR-429 and miR-7-1-3p. *Human Reprod.*, 28,1827-36.
41. Chen X, Chen M, Xu B, Tang R, Han X, Qin Y, Xu B, **Hang B**, Mao Z, Huo W, Xia Y, Xu Z, Wang X. (2013) Parental phenols exposure and spontaneous abortion in Chinese population residing in the middle and lower reaches of the Yangtze River. *Chemosphere*. 93, 217-22.
42. Qin Y, Du G, Chen M, Wu W, Lu C, **Hang B**, Zhou Z, Xia Y, Wang X. (2014) Combined effects of urinary phytoestrogens metabolites and enzyme gene variants on idiopathic male infertility. *Arch Toxicol*. 88(8):1527-36.
43. Qin Y, Ji J, Du G, Wu W, Dai J, Hu Z, Sha J, **Hang B**, Lu C, Xia Y, Wang X. (2014) Comprehensive pathway-based analysis identifies associations of BCL2, GNAO1 and CHD2 with non-obstructive azoospermia risk. *Hum Reprod*. Feb 18.
44. Sarker, A.H., Chatterjee, A., Williams, M., Lin, S., Havel, C., Jacob, III P., Boldogh, I., Hazra, T.K., Talbot, P., and **Hang, B**. (2014) NEIL2 protects against oxidative DNA damage induced by sidestream smoke in human cells. *Plos One*, 9(3): e90261.
45. Xu B, Mao Z, Ji X, Chen M, Zhang X, **Hang B**, Liu Y, Wang X, Xia Y. Silica nanoparticles induce mitochondrial injury and apoptosis in male germ cells. Submitted.
46. Zhang S, Qiao S, Chen M, Xia Y, Hang B, Cheng S. (2015) An investigation of thirdhand smoke pollution in 3 types of places of Nanjing. *Chinese journal of preventive medicine*. 49, 31-5.
47. Tang R, Chen M, Zhou K, Chen D, Yu J, Hu W, Song L, **Hang B**, Wang X, Xia Y (2015). Prenatal lignan exposures, pregnancy urine estrogen profiles and birth outcomes. *Environ Pollut*. 205:261-268.
48. Xu B, Mao Z, Ji X, Yao M, Chen M, Zhang X, **Hang B**, Liu Y, Tang W, Tang Q, Wang X, Xia Y (2015). miR-98 and its host gene Huwe1 target Caspase-3 in Silica nanoparticles-treated male germ cells. *Scientific Reports*, 2015, 5:12938.
49. Xu B, Chen M, Yao M, Ji X, Mao Z., Tang W, Qiao S, Schick SS, Mao JH, **Hang B**, Xia Y. Metabolomics reveals metabolic changes in male reproductive cells exposed to thirdhand smoke. *Scientific Reports*, 2015, 5:15512.
50. Walian PJ, **Hang B**, Mao JH (2016). Prognostic significance of FAM83D gene expression across human cancer types. *Oncotarget*. 19, 3332-40.
51. Tang W, Cai P, Huo W, Li H, Tang J, Qin J, Zhu D, **Hang B**, Wang S, Xia Y (2016). Suppressive action of miRNAs to ARP2/3 complex reduces cell migration and proliferation via RAC isoforms in Hirschsprung Disease. *J. Cellular & Molecular Medicine*, 20(7):1266-75.
52. Du C, Shen Z, Zang R, Xie H, Li H, Chen P, **Hang B**, Xu X, Tang W, Xia Y (2016). Negative feedback circuitry between MIR143HG and RBM24 in Hirschsprung disease. *Biochim Biophys Acta*. 1862(11):2127-2136.
53. Wang P, Wang Y, **Hang B**, Zou X, Mao JH (2016). A novel gene expression-based prognostic scoring system to predict survival in gastric cancer. *Oncotarget*. 7(34):55343-55351.

54. Dhall S, Alamat R, Castro A, Sarker AH, Mao JH, Chan A, **Hang B**, Martins-Green M (2016). Tobacco toxins deposited on surfaces (third hand smoke) impair wound healing. *Clin Sci (Lond)*. 130(14):1269-84.
55. **Bo Hang**, Antoine M Snijders, Yurong Huang, Suzaynn F Schick, Pin Wang, Yankai Xia, Christopher Havel, Peyton Jacob III, Neal Benowitz, Hugo Destailats, Lara A Gundel, and Jian-Hua Mao (2017). Early exposure to thirdhand cigarette smoke affects body mass and the development of immunity in mice, submitted to *Scientific Report*, 7:41915.
56. Gokey T, **Hang B**, Guliaev AB (2016). Cadmium(II) inhibition of human uracil-DNA glycosylase by catalytic water supplantation. *Sci Rep*. 6:39137.
57. Sakurai R, Shen H, **Hang B**, Schick S, Lee C, Rehan V (2017). Exposure to thirdhand smoke results in oxidative damage, increased apoptosis, and altered differentiation in fetal lung fibroblasts. *J. Investigative Medicine*. 65: 119.
58. Snijders AM, Lee SY, **Hang B**, Hao W, Bissell MJ, Mao JH (2017). FAM83 family oncogenes are broadly involved in human cancers: an integrative multi-omics approach. *Mol Oncol*. 11, 167-79.
59. Zhao Y, **Hang B**, Xiong GW, Zhang XW (2017). Laparoscopic Radical Hysterectomy in Early Stage Cervical Cancer: A Systematic Review and Meta-analysis. *J. Laparoendosc Adv Surg Tech A*. 27(11):1132-44.
60. Chang C, Chen M, Gao J, Luo J, Wu K, Dong T, Zhou K, He X, Hu W, Wu W, Lu C, **Hang B**, Meeker JD, Wang X, Xia Y (2017). Current pesticide profiles in blood serum of adults in Jiangsu Province of China and a comparison with other countries. *Environ Int.* 102, 213-22.
61. Wang P, Wang L, Sha J, Lou G, Lu N, **Hang B**, Mao JH, Zou X (2017). Expression and Transcriptional Regulation of Human ATP6V1A Gene in Gastric Cancers, *Sci Rep*. 7(1):3015.
62. Jacob P 3rd, Benowitz NL, Destailats H, Gundel L, **Hang B**, Martins-Green M, Matt GE, Quintana PJ, Samet JM, Schick SF, Talbot P, Aquilina NJ, Hovell MF, Mao JH, Whitehead TP (2017). Perspective: Thirdhand Smoke: New Evidence, Challenges, and Future Directions. *Chem Res Toxicol.*, 30, 270-94.
63. **Hang B**, Wang P, Zhao Y, Sarker A, Chenna A, Xia Y, Snijders AM, Mao JH (2017). Adverse Health Effects of Thirdhand Smoke: From Cell to Animal Models. *Int J Mol Sci.* 18(5).
64. Chen EG, Wang P, Lou H, Wang Y, Yan H, Bi L, Liu L, Li B, Snijders AM, Mao JH and **Hang B**. (2018). A robust gene expression-based prognostic risk score predicts overall survival of lung adenocarcinoma patients. *Oncotarget*, 9, 6862-71.
65. Dong T, Hu W, Zhou X, Lin H, Lan L, **Hang B**, Lv W, Geng Q, Xia Y (2018). Exposure to maternal smoking during pregnancy and attention-deficit/hyperactivity disorder in offspring: A meta-analysis. *Reprod Toxicol.*, 76, 63-70.
66. **Hang B**, Wang Y, Huang Y, Wang P, Langley SA, Bi L, Sarker AH, Schick SF, Havel C, Jacob III P, Benowitz N, Destailats H, Tang X, Xia Y, Kuang-Yu Jen, Gundel LA, Mao JH and Snijders AM (2018). Short-term early exposure to thirdhand cigarette smoke increases lung cancer incidence in mice. *Clin Sci (Lond)*, 132, 475-88.
67. **Hang B**, Mao JH, Snijders AM (2018). Commentary: Genetic susceptibility to thirdhand smoke induced lung cancer development. *Nicotine Tob Res.*, Jun 16.
68. Zhang Y, Xu B, Yao M, Dong T, Mao Z, **Hang B**, Han X, Lin Z, Bian Q, Li M, Xia Y (2018). Titanium dioxide nanoparticles induce proteostasis disruption and autophagy in human trophoblast cells. *Chem Biol Interact.*, 296, 124-33.

Invited Articles:

1. Singer B, and **Hang B**. (1997) Perspective: What structural features determine repair enzyme specificity and mechanism in chemically modified DNA? *Chem. Res. Toxicol.*, 10, 713-32.
2. Singer B, and **Hang B**. (2000) Commentary: Nucleic acid sequence and repair: role of adduct, neighbor bases and enzyme specificity. *Carcinogenesis*, 21, 1071-8.
3. **Hang B**, and Singer B. (2003) Protein-protein interactions involving DNA glycosylases. *Chem Res Toxicol.*, 16, 1181-95.
4. **Hang B**. (2004) Repair of exocyclic DNA adducts: rings of complexity. *BioEssays*, 26, 1195-208.

5. 成森平, 夏彦恺, 杭渤 (2014). 二手烟: 一个新发现的健康威胁 (综述). *科技导报*, 32, 74-83.
6. **Hang B**, Chenna, A, Gundel L (2014). Commentary: Smoking: the hidden/emerging risks. *Chemistry and Industry*. Sept. issue.
7. **Hang B**, Cheng S, Xia Y, Mao JH (2015). Thirdhand smoke: current research status and future prospects. *Chinese journal of preventive medicine*, 49, 297-300.
8. 杭渤, 束永前, 刘平, 魏光伟, 金健, 郝文山, 王培俊, 李斌, 毛建华 (2015). 肿瘤的精准医疗: 概念、技术和展望. *科技导报*, 33, 14-21.
9. **Hang B**, Wang P, Zhao Y, Rehan Y, Mao JH, Snijders A (2019). Perspective: thirdhand smoke: Genotoxicity and carcinogenic potential. *Chronicle Diseases & Translational Medicine*, in press.

Book Chapters:

1. Singer B, and **Hang B**. (1998) Role of chemical structure in determination of repair enzyme substrate specificity and mechanism. In: *DNA and Free Radicals: Techniques, Mechanisms and Applications*. Eds: Auoma, O.I. and Halliwell, B. OICA International, Santa Lucia, 27-53.
2. Singer B, and **Hang B**. (1999) Mammalian enzymatic repair of etheno and p-benzoquinone exocyclic adducts derived from the carcinogens, vinyl chloride and benzene. In: *Exocyclic DNA adducts in mutagenesis and carcinogenesis*, Eds: Singer, B. and Bartsch, H., IARC Scientific Publications, No 150, p233-47.
3. **Hang B**. (2006) Base Excision Repair in *DNA Repair, Genetic Instability, and Cancer* (Eds. Wei, Q., Li, L. & Chen, D.), World Scientific Publishing Co. Pte. Ltd., Singapore. p23-64.

In the News (selected)

2010:

1. Thirdhand Smoke: Studies Multiply, Catchy Name Raises Awareness, *JNCI*, 102, 1004-5.
<http://jnci.oxfordjournals.org/content/102/14/1004.extract>
2. Thirdhand Smoke Exposure and Health Effects -- *California Consortium on Thirdhand Smoke Funded by TRDRP*
http://www.trdrp.org/research_highlights/th3.php

2013:

1. LBNL press release: Berkeley lab confirms thirdhand smoke causes DNA damage.
<http://newscenter.lbl.gov/feature-stories/2013/06/20/berkeley-lab-confirms-thirdhand-smoke-causes-dna-damage/>
2. Huffington Post: Thirdhand smoke spurs DNA damage, study finds.
https://www.huffpost.com/entry/thirdhand-smoke-dna-damage-cells_n_3474797
3. Daily Mail online: Pioneering study claims THIRD-HAND smoke causes significant damage to our DNA - and its danger increases over time.
<http://www.dailymail.co.uk/sciencetech/article-2345815/Pioneering-study-claims-THIRD-HAND-smoke-causes-significant-genetic-mutations--danger-increases-time.html>
4. Times Of India: Lingering smoke can harm DNA.
<http://timesofindia.indiatimes.com/home/science/Lingering-smoke-can-harm-DNA/articleshow/20709436.cms>

2014 :

1. ACS (March 17, Dallas): Major "third-hand smoke" compound causes DNA damage - and potentially cancer.
<http://www.acs.org/content/acs/en/pressroom/newsreleases/2014/march/major-third-hand-smoke-compound-causes-dna-damage-and-potentially-cancer.html>
2. The Sacramento Bee: Thirdhand smoke poses health danger, especially to children,

scientists say.

<http://www.sacbee.com/2014/03/18/6248726/thirdhand-smoke-poses-health-danger.html>

3. Fox News (TV): "Thirdhand" smoke poses cancer risk.
<http://www.foxnews.com/health/2014/03/17/thirdhand-smoke-poses-cancer-risk/>
4. CBS News: DNA damage seen from "thirdhand smoke".
<http://www.cbsnews.com/videos/dna-damage-seen-from-thirdhand-smoke/>
5. National Public Radio: Scientists search for toxins in cigarette smoke residue.
<http://www.npr.org/blogs/health/2014/03/17/290858487/scientists-search-for-toxins-in-cigarette-smoke-residue>
6. National Geographic: Thirdhand smoke is real - and risky to your health.
<http://news.nationalgeographic.com/news/2014/03/140320-thirdhand-smoke-cigarettes-cancer/>
7. Men's Health: Health danger: thirdhand smoke.
<http://www.menshealth.com/health/new-apartment-killing-you>
8. CBSlocal (Associated Press) : California bill targets third-hand smoke in home day care centers.
<http://sacramento.cbslocal.com/2014/04/21/california-bill-targets-third-hand-smoke-in-home-day-care-centers>
9. Washington Times: Bill bans smoking at all times in home day cares.
<http://www.washingtontimes.com/news/2014/apr/21/bill-would-ban-smoking-in-home-day-care-centers>
10. American Baby Magazine (2014.8)

2015:

1. LBNL Press Release: Berkeley Lab to Investigate Link between Thirdhand Smoke and Cancer.
<http://newscenter.lbl.gov/2015/09/28/berkeley-lab-to-investigate-link-between-thirdhand-smoke-and-cancer/>

2016:

1. US News & World Report: Avoiding the dangers of thirdhand smoke.
<http://health.usnews.com/health-news/patient-advice/articles/2016-04-05/avoiding-the-dangers-of-thirdhand-smoke>

2017:

1. LBNL press release: Thirdhand Smoke Affects Weight, Blood Cell Development in Mice.
<http://newscenter.lbl.gov/2017/02/03/thirdhand-smoke-affects-weight-blood-cells-mice>
2. USA Today: Yes, there is such a thing as thirdhand smoke – and it's more dangerous than you think
<https://www.usatoday.com/story/news/nation/2017/05/31/yes-there-such-thing-thirdhand-smoke---and-s-more-dangerous-than-you-think/102340108/>
3. CCTV—1 (Chinese Central TV-1).
<http://tv.cctv.com/v1/index.shtml?videoID=VIDEajUQcg1gnx70JuK4Hq0O170220>

2018:

1. LBNL press release: Thirdhand Smoke found to increase lung cancer risk in mice.
<https://newscenter.lbl.gov/2018/03/08/thirdhand-smoke-found-to-increase-lung-cancer-risk-in-mice/>
2. The Daily Californian: Berkeley researchers find 'thirdhand smoke' increases chances of lung cancer
<http://www.dailycal.org/2018/03/13/lawrence-berkeley-national-laboratory-study-explores-implications-thirdhand-smoke/>
3. The Washington Post: Thirdhand smoke is widespread and may be dangerous, mounting evidence shows.

https://www.washingtonpost.com/news/to-your-health/wp/2018/05/09/third-hand-smoke-is-widespread-and-may-be-dangerous-mounting-evidence-shows/?noredirect=on&utm_term=.5b0af35462cc

4. Xinhua Agency: Early exposure to thirdhand smoke may pose health risks to humans.
www.xinhuanet.com/english/2018-03/09/c_137027789.htm