

Papers published in high impact journals and highly cited in our division

April 18, 2023

[High impact journals]

*: first author, §: last author or corresponding author

Ryuji Hamamoto

1. Critical roles of non-histone protein lysine methylation in human tumorigenesis*,§. *Nature Reviews Cancer* [IF = 69.800]
2. A variable number of tandem repeats polymorphism in an E2F-1 binding element in the 5' flanking region of SMYD3 is a risk factor for human cancers*. *Nature Genetics* [IF = 41.376]
3. SMYD3 encodes a histone methyltransferase involved in the proliferation of cancer cells*. *Nature Cell Biology* [IF = 28.213]
4. Over-expression of the JmjC histone demethylase KDM5B in human carcinogenesis: involvement in the proliferation of cancer cells through the E2F/RB pathway§. *Molecular Cancer* [IF = 41.444]
5. Minichromosome Maintenance Protein 7 is a potential therapeutic target in human cancer and a novel prognostic marker of non-small cell lung cancer§. *Molecular Cancer* [IF = 41.444]
6. Critical role of lysine 134 methylation on histone H2AX for γ -H2AX production and DNA repair§. *Nature Communications* [IF = 17.694]
7. Enhanced HSP70 lysine methylation promotes proliferation of cancer cells through activation of aurora kinase B§. *Nature Communications* [IF = 17.694]
8. Replication stress triggers microsatellite destabilization and hypermutation leading to clonal expansion in vitro. *Nature Communications* [IF = 17.694]
9. Enhanced expression of RAD51AP1 is involved in the growth of intrahepatic cholangiocarcinoma cells. *Clinical Cancer Research* [IF = 13.801]
10. Histone Lysine Methyltransferase SETD8 Promotes Carcinogenesis by Dereulating PCNA Expression§. *Cancer Research* [IF = 13.312]
11. Demethylation of MYPT1 by LSD1 promotes cell cycle progression in cancer cells§. *Cancer Research* [IF = 13.312]
12. The Lysine 831 of Vascular Endothelial Growth Factor Receptor 1 Is a Novel Target of Methylation by SMYD3. *Cancer Research* [IF = 13.312]
13. Involvement of TLL4 Polyglutamylase in PELP1 Polyglutamylation and Chromatin Remodeling in Pancreatic Cancer Cells. *Cancer Research* [IF = 13.312]
14. Isolation of a novel human gene, APCDD1, as a direct target of the β -catenin/T-cell factor 4 complex with probable involvement in colorectal carcinogenesis. *Cancer Research* [IF = 13.312]
15. Recognition of modification status on a histone H3 tail by linked histone reader modules of the epigenetic regulator UHRF1. *Proc Natl Acad Sci USA* [IF = 10.700]
16. *TIPUH1* encodes a novel KRAB zinc-finger protein highly expressed in human hepatocellular carcinomas. *Oncogene* [IF = 8.756]
17. Enhanced methyltransferase activity of SMYD3 by the cleavage of its N-terminal region in human cancer cells. *Oncogene* [IF = 8.756]
18. Overexpression of LSD1 contributes to human carcinogenesis through chromatin regulation in various cancers§. *International Journal of Cancer* [IF = 7.316]
19. The JmjC domain-containing histone demethylase KDM3A is a positive regulator of the G1/S transition in cancer cells via transcriptional regulation of the HOXA1 gene§. *International Journal of Cancer* [IF = 7.316]
20. Dysregulation of PRMT1 and PRMT6, type I arginine methyltransferases, is involved in various types of human cancers§. *International Journal of Cancer* [IF = 7.316]

Syuzo Kaneko

1. Polyadenylation factor CPSF-73 is the pre-mRNA 3'-end-processing endonuclease. *Nature* [IF = 69.504]
2. Interactions between JARID2 and noncoding RNAs regulate PRC2 recruitment to chromatin*. *Molecular Cell* [IF = 19.328]
3. Jarid2 is implicated in the initial Xist-induced targeting of PRC2 to the inactive X chromosome. *Molecular Cell* [IF = 19.328]
4. The mammalian RNA polymerase II C-terminal domain interacts with RNA to suppress transcription-coupled 3' end formation*. *Molecular Cell* [IF = 19.328]
5. Allosteric activation dictates PRC2 activity independent of its recruitment to chromatin. *Molecular Cell* [IF = 19.328]
6. PRC2 binds active promoters and contacts nascent RNAs in embryonic stem cells*. *Nature Structural & Molecular Biology* [IF = 18.361]
7. Replication stress triggers microsatellite destabilization and hypermutation leading to clonal expansion in vitro. *Nature Communications* [IF = 17.694]
8. Phosphorylation of the PRC2 component Ezh2 is cell cycle-regulated and up-regulates its binding to ncRNA*. *Genes & Development* [IF = 12.890]
9. The multifunctional protein p54nrb/PSF recruits the exonuclease XRN2 to facilitate pre-mRNA 3' processing and transcription termination*. *Genes & Development* [IF = 12.890]
10. BRCA1/BARD1 inhibition of mRNA 3' processing involves targeted degradation of RNA polymerase II. *Genes & Development* [IF = 12.890]
11. Nascent RNA interaction keeps PRC2 activity poised and in check*. *Genes & Development* [IF = 12.890]
12. The tumor suppressor Cdc73 functionally associates with CPSF and CstF 3' mRNA processing factors. *Proc Natl Acad Sci USA* [IF = 10.700]
13. Human capping enzyme promotes formation of transcriptional R loops in vitro*. *Proc Natl Acad Sci USA* [IF = 10.700]

Masaaki Komatsu

1. Association of an inherited genetic variant with vincristine-1 related peripheral neuropathy in children with acute lymphoblastic leukemia. *JAMA* [IF = 157.375]
2. Pharmacoefficacy in Paclitaxel-Induced Sensory Peripheral Neuropathy*. *Clinical Cancer Research* [IF = 13.801]

Ken Asada

1. Progesterone Regulate Cardiac Repolarization Through a Nongenomic Pathway: An In Vitro Patch-Clamp and Computational Modeling Study. *Circulation* [IF = 39.922]
2. Short DNA/RNA heteroduplex oligonucleotide interacting proteins are key regulators of target gene silencing*. *Nucleic Acids Research* [IF = 19.160]
3. Enantioselective DNA Alkylation by a Pyrrole-Imidazole S-CBI Conjugate. *Journal of the American Chemical Society* [IF = 16.383]
4. Angubindin-1 for an efficient in vivo delivery of antisense oligonucleotide into the central nervous system across the blood-brain barrier. *Journal of Controlled Release* [IF = 11.467]
5. Systemic DNA/RNA heteroduplex oligonucleotide administration for regulating the gene expression of dorsal root ganglion and sciatic nerve. *Molecular Therapy – Nucleic Acids* [IF = 10.183]
6. Separation-related rapid nuclear transport of DNA/RNA heteroduplex oligonucleotide: Unveiling distinctive intracellular trafficking. *Molecular Therapy – Nucleic Acids* [IF = 10.183]
7. Rescuing dicer Defects via Inhibition of an Antidicing Nuclease*. *Cell Reports* [IF = 9.995]

[Highly cited papers]

Dr. Hamamoto

	title	cited	year
1	<i>SMYD3</i> encodes a histone methyltransferase involved in the proliferation of cancer cells	887	2004
2	Overexpression of <i>LSD1</i> contributes to human carcinogenesis through chromatin regulation in various cancers	505	2011
3	Enhanced <i>SMYD3</i> expression is essential for the growth of breast cancer cells	389	2006
4	Critical roles of non-histone protein lysine methylation in human tumorigenesis	340	2015
5	Dysregulation of <i>PRMT1</i> and <i>PRMT6</i> , Type I arginine methyltransferases, is involved in various types of human cancers	320	2011
6	Demethylation of RB regulator <i>MYPT1</i> by histone demethylase <i>LSD1</i> promotes cell cycle progression in cancer cells	226	2011
7	Overexpression of the JmjC histone demethylase <i>KDM5B</i> in human carcinogenesis: involvement in the proliferation of cancer cells through the E2F/RB pathway	216	2010
8	Recognition of modification status on a histone H3 tail by linked histone reader modules of the epigenetic regulator <i>UHRF1</i>	207	2005
9	Validation of the histone methyltransferase <i>EZH2</i> as a therapeutic target for various types of human cancer and as a prognostic marker	203	2011
10	<i>RB1</i> methylation by <i>SMYD2</i> enhances cell cycle progression through an increase of <i>RB1</i> phosphorylation	191	2012
11	Histone lysine methyltransferase <i>SETD8</i> promotes carcinogenesis by deregulating <i>PCNA</i> expression	186	2012
12	The lysine 831 of vascular endothelial growth factor receptor 1 is a novel target of methylation by <i>SMYD3</i>	185	2007
13	Development of a real-time endoscopic image diagnosis support system using deep learning technology in colonoscopy	177	2019
14	A variable number of tandem repeats polymorphism in an E2F-1 binding element in the 5' flanking region of <i>SMYD3</i> is a risk factor for human cancers	140	2012
15	<i>UHRF1</i> is a novel molecular marker for diagnosis and the prognosis of bladder cancer	139	2009
16	Lysyl 5-hydroxylation, a novel histone modification, by Jumonji domain containing 6 (<i>JMJD6</i>)	136	2013
17	<i>UHRF1</i> is a novel diagnostic marker of lung cancer	136	2010
18	Enhanced expression of <i>EHMT2</i> is involved in the proliferation of cancer cells through negative regulation of <i>SIAH1</i>	130	2011
19	Enhanced <i>HSP70</i> lysine methylation promotes proliferation of cancer cells through activation of Aurora kinase B	126	2012
20	Minichromosome Maintenance Protein 7 is a potential therapeutic target in human cancer and a novel prognostic marker of non-small cell lung cancer	120	2011
21	The development of a skin cancer classification system for pigmented skin lesions using deep learning	114	2020
22	<i>WHSC1</i> Promotes Oncogenesis through Regulation of NIMA-Related Kinase-7 in Squamous Cell Carcinoma of the Head and Neck	112	2015
23	Critical role of lysine 134 methylation on histone H2AX for γ -H2AX production and DNA repair	111	2014
24	The histone methyltransferase <i>SMYD2</i> methylates <i>PARP1</i> and promotes poly (ADP-ribose) polymerase activity in cancer cells	109	2014
25	Isolation of a novel human gene, <i>APCDD1</i> , as a direct target of the β -catenin/T-cell factor 4 complex with probable involvement in colorectal carcinogenesis	103	2002
26	The JmjC domain-containing histone demethylase <i>KDM3A</i> is a positive regulator of the G1/S transition in cancer cells via transcriptional regulation of the <i>HOXA1</i> gene	100	2012

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1	Polyadenylation factor CPSF-73 is the pre-mRNA 3'-end-processing endonuclease	508	2006
2	Phosphorylation of the PRC2 component Ezh2 is cell cycle-regulated and up-regulates its binding to ncRNA	405	2010
3	Interactions between JARID2 and noncoding RNAs regulate PRC2 recruitment to chromatin	363	2014
4	PRC2 binds active promoters and contacts nascent RNAs in embryonic stem cells	302	2013
5	Jarid2 is implicated in the initial Xist-induced targeting of PRC2 to the inactive X chromosome	251	2014
6	The multifunctional protein p54nrb/PSF recruits the exonuclease XRN2 to facilitate pre-mRNA 3' processing and transcription termination	205	2007
7	BRCA1/BARD1 inhibition of mRNA 3' processing involves targeted degradation of RNA polymerase II	195	2005
8	Terminating the transcript: breaking up is hard to do	182	2006
9	Nascent RNA interaction keeps PRC2 activity poised and in check	166	2014
10	Identification and functional characterization of neo-poly (A) polymerase, an RNA processing enzyme overexpressed in human tumors	146	2001
11	The tumor suppressor Cdc73 functionally associates with CPSF and CstF 3' mRNA processing factors	140	2009
12	Allosteric activation dictates PRC2 activity independent of its recruitment to chromatin	102	2018

Dr. Komatsu

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1	Association of an inherited genetic variant with vincristine-1 related peripheral neuropathy in children with acute lymphoblastic leukemia.	261	2015
2	Modeling chemotherapeutic neurotoxicity with human induced pluripotent stem cell-derived neuronal cells	102	2015

Dr. Asada

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1	Progesterone regulates cardiac repolarization through a nongenomic pathway: an in vitro patch-clamp and computational modeling study.	191	2007