# Tet proteins can convert 5-methylcytosine to 5-formylcytosine and 5-carboxylcytosine

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| # | Paper | IF | Citations |
|---|---|---|---|
| 2298 | Ultrasensitive Determination of Rare Modified Cytosines Based on Novel Hydrazine Labeling Reagents. | | |
| 2297 | Assessment of DNA Epigenetic Modifications. | | |
| 2296 | Tet2 Catalyzes Stepwise 5Methylcytosine Oxidation by an Iterative and de novo Mechanism. | | |
| 2295 | Discrimination between 5Hydroxymethylcytosine and 5Methylcytosine in DNA via Selective Electrogenerated Chemiluminescence (ECL) Labeling. | | |
| 2294 | Thymine DNA glycosylase can rapidly excise 5-formylcytosine and 5-carboxylcytosine: potential implications for active demethylation of CpG sites. **2011**, 286, 35334-35338 | | 621 |
| 2293 | Design, synthesis, and incorporation of fluorous 5-methylcytosines into oligonucleotides. **2011**, 76, 10263-8 | | 9 |
| 2292 | Mechanisms and functions of Tet protein-mediated 5-methylcytosine oxidation. **2011**, 25, 2436-52 | | 487 |
| 2291 | Epigenomic deregulation in the immune system. **2011**, 3, 697-713 | | 21 |
| 2290 | Promises and challenges of anticancer drugs that target the epigenome. **2011**, 3, 547-65 | | 19 |
| 2289 | Generation and replication-dependent dilution of 5fC and 5caC during mouse preimplantation development. **2011**, 21, 1670-6 | | 220 |
| 2288 | TET2: epigenetic safeguard for HSC. **2011**, 118, 4501-3 | | 29 |
| 2287 | DNA methylation: dynamic and stable regulation of memory. **2011**, 2, 459-67 | | 2 |
| 2286 | DNA demethylation dynamics. **2011**, 146, 866-72 | | 498 |
| 2285 | TET family proteins and their role in stem cell differentiation and transformation. **2011**, 9, 193-204 | | 183 |
| 2284 | Replication-dependent loss of 5-hydroxymethylcytosine in mouse preimplantation embryos. *Science*, **2011**, 334, 194 | 33.3 | 384 |
| 2283 | Preparation of DNA containing 5-hydroxymethyl-2'-deoxycytidine modification through phosphoramidites with TBDMS as 5-hydroxymethyl protecting group. **2011**, Chapter 4, Unit 4.47.1-18 | | 2 |
| 2282 | 5-Hydroxymethylcytosine: a new kid on the epigenetic block?. **2011**, 7, 562 | | 63 |

| | | | |
|---|---|---|---|
| 2281 | Oxidierte Cytosin-Derivate – der Schlüssel zur aktiven DNA-Demethylierung?. **2011**, 123, 12347-12349 | | 9 |
| 2280 | Oxidized cytosine metabolites offer a fresh perspective for active DNA demethylation. **2011**, 50, 12143-5 | | 20 |
| 2279 | Improved synthesis and mutagenicity of oligonucleotides containing 5-hydroxymethylcytosine, 5-formylcytosine and 5-carboxylcytosine. **2011**, 17, 13782-8 | | 71 |
| 2278 | Burning off DNA methylation: new evidence for oxygen-dependent DNA demethylation. **2011**, 12, 2543-5 | | 17 |
| 2277 | Active DNA demethylation by oxidation and repair. **2011**, 21, 1649-51 | | 44 |
| 2276 | Molecular biology. Demystifying DNA demethylation. *Science*, **2011**, 333, 1229-30 | 33.3 | 60 |
| 2275 | In vivo control of CpG and non-CpG DNA methylation by DNA methyltransferases. **2012**, 8, e1002750 | | 279 |
| 2274 | Replication-coupled passive DNA demethylation for the erasure of genome imprints in mice. **2013**, 32, 340-53 | | 227 |
| 2273 | BZLF1 governs CpG-methylated chromatin of Epstein-Barr Virus reversing epigenetic repression. **2012**, 8, e1002902 | | 61 |
| 2272 | Interactions between epigenetics and metabolism in cancers. **2012**, 2, 163 | | 59 |
| 2271 | 5-hydroxymethyl-cytosine enrichment of non-committed cells is not a universal feature of vertebrate development. **2012**, 7, 383-9 | | 44 |
| 2270 | Acute depletion of Tet1-dependent 5-hydroxymethylcytosine levels impairs LIF/Stat3 signaling and results in loss of embryonic stem cell identity. **2012**, 40, 3364-77 | | 78 |
| 2269 | Fundamental concepts of epigenetics for consideration in anesthesiology. **2012**, 25, 434-43 | | 13 |
| 2268 | A heterozygous IDH1R132H/WT mutation induces genome-wide alterations in DNA methylation. **2012**, 22, 2339-55 | | 137 |
| 2267 | Biochemical and structural characterization of the glycosylase domain of MBD4 bound to thymine and 5-hydroxymethyuracil-containing DNA. **2012**, 40, 9917-26 | | 64 |
| 2266 | Hydroxylation mediates chromatin demethylation. **2012**, 151, 229-46 | | 19 |
| 2265 | Epigenetics and stroke risk – beyond the static DNA code. **2012**, 67 | | 1 |
| 2264 | An atomic model of Zfp57 recognition of CpG methylation within a specific DNA sequence. **2012**, 26, 2374-9 | | 94 |

| | | |
|---|---|---|
| 2263 | Promoter methylation confers kidney-specific expression of the Klotho gene. **2012**, 26, 4264-74 | 60 |
| 2262 | Regulation and function of mammalian DNA methylation patterns: a genomic perspective. **2012**, 11, 240-50 | 24 |
| 2261 | The methylomes of six bacteria. **2012**, 40, 11450-62 | 200 |
| 2260 | Choline nutrition programs brain development via DNA and histone methylation. **2012**, 12, 82-94 | 49 |
| 2259 | Epigenetic changes in pediatric solid tumors: promising new targets. **2012**, 18, 2768-79 | 72 |
| 2258 | Report on the 10th EMBL conference on transcription and chromatin: August 25-28, 2012 EMBL advanced training centre, Heidelberg, Germany. **2012**, 7, 1211-6 | 1 |
| 2257 | 5-Carboxylcytosine is localized to euchromatic regions in the nuclei of follicular cells in axolotl ovary. **2012**, 3, 565-9 | 11 |
| 2256 | Inhibition of MspI cleavage activity by hydroxymethylation of the CpG site: a concern for DNA modification studies using restriction endonucleases. **2012**, 7, 131-6 | 12 |
| 2255 | Epigenomics in Neurobehavioral Diseases. **2012**, 127-152 | |
| 2254 | Enzymatic analysis of Tet proteins: key enzymes in the metabolism of DNA methylation. **2012**, 512, 93-105 | 33 |
| 2253 | Lesion processing by a repair enzyme is severely curtailed by residues needed to prevent aberrant activity on undamaged DNA. **2012**, 109, 8091-6 | 41 |
| 2252 | The epigenetic control of E-box and Myc-dependent chromatin modifications regulate the licensing of lamin B2 origin during cell cycle. **2012**, 40, 9021-35 | 23 |
| 2251 | Targeting the epigenome in ovarian cancer. **2012**, 8, 151-64 | 11 |
| 2250 | Tet proteins: on track towards DNA demethylation?. **2012**, 3, 395-402 | 1 |
| 2249 | Role of ART in imprinting disorders. **2012**, 30, 92-104 | 41 |
| 2248 | Crosstalk Between DNA and Histones: Tet's New Role in Embryonic Stem Cells. **2012**, 13, 603-8 | 14 |
| 2247 | Molecular mechanisms involved in the aging of the T-cell immune response. **2012**, 13, 589-602 | 64 |
| 2246 | Biochemie 2011. **2012**, 60, 300-312 | 0 |

| | | |
|---|---|---|
| 2245 | Tet2 disruption leads to enhanced self-renewal and altered differentiation of fetal liver hematopoietic stem cells. **2012**, 2, 273 | 42 |
| 2244 | Recurrent TET2 mutations in peripheral T-cell lymphomas correlate with TFH-like features and adverse clinical parameters. **2012**, 120, 1466-9 | 319 |
| 2243 | Epigenetic Reprogramming in Mammalian Development. **2012**, | 1 |
| 2242 | Tet-assisted bisulfite sequencing of 5-hydroxymethylcytosine. **2012**, 7, 2159-70 | 203 |
| 2241 | Active DNA demethylation in plants and animals. **2012**, 77, 161-73 | 90 |
| 2240 | Epigenetics advancing personalized nanomedicine in cancer therapy. **2012**, 64, 1532-43 | 27 |
| 2239 | New functions for DNA modifications by TET-JBP. **2012**, 19, 1061-4 | 9 |
| 2238 | Mapping recently identified nucleotide variants in the genome and transcriptome. **2012**, 30, 1107-16 | 179 |
| 2237 | The GLIB technique for genome-wide mapping of 5-hydroxymethylcytosine. **2012**, 7, 1909-17 | 50 |
| 2236 | Tet1 controls meiosis by regulating meiotic gene expression. **2012**, 492, 443-7 | 207 |
| 2235 | Thymine DNA glycosylase specifically recognizes 5-carboxylcytosine-modified DNA. **2012**, 8, 328-30 | 238 |
| 2234 | Role of TET2 and ASXL1 mutations in the pathogenesis of myeloproliferative neoplasms. **2012**, 26, 1053-64 | 23 |
| 2233 | Epigenetics: Erase for a new start. **2012**, 492, 363-4 | 4 |
| 2232 | CG methylation. **2012**, 4, 655-63 | 61 |
| 2231 | Low-temperature physics: Cool molecules. **2012**, 492, 364-5 | |
| 2230 | Hydroxylation of 5-methylcytosine by TET2 maintains the active state of the mammalian HOXA cluster. **2012**, 3, 818 | 57 |
| 2229 | Tet3 CXXC domain and dioxygenase activity cooperatively regulate key genes for Xenopus eye and neural development. **2012**, 151, 1200-13 | 188 |
| 2228 | Cellular reprogramming: a small molecule perspective. **2012**, 24, 784-92 | 36 |

| | | |
|---|---|---|
| 2227 | Genome-wide distribution of 5-formylcytosine in embryonic stem cells is associated with transcription and depends on thymine DNA glycosylase. **2012**, 13, R69 | 188 |
| 2226 | Mechanisms of human histone and nucleic acid demethylases. **2012**, 16, 525-34 | 129 |
| 2225 | MeCP2 binds to 5hmC enriched within active genes and accessible chromatin in the nervous system. **2012**, 151, 1417-30 | 716 |
| 2224 | TET1 suppresses cancer invasion by activating the tissue inhibitors of metalloproteinases. **2012**, 2, 568-79 | 214 |
| 2223 | Epigenetic Factors in Neurodegeneration. **2012**, 1, 206-213 | |
| 2222 | Epigenetics-Based Therapeutics for Neurodegenerative Disorders. **2012**, 1, 229-236 | 33 |
| 2221 | DNA methylation in schizophrenia: progress and challenges of epigenetic studies. **2012**, 4, 96 | 59 |
| 2220 | 5-hmC in the brain is abundant in synaptic genes and shows differences at the exon-intron boundary. **2012**, 19, 1037-43 | 186 |
| 2219 | Methylcytosine and normal cytosine deamination by the foreign DNA restriction enzyme APOBEC3A. **2012**, 287, 34801-8 | 99 |
| 2218 | The mammalian de novo DNA methyltransferases DNMT3A and DNMT3B are also DNA 5-hydroxymethylcytosine dehydroxymethylases. **2012**, 287, 33116-21 | 145 |
| 2217 | Effect of aging on 5-hydroxymethylcytosine in the mouse hippocampus. **2012**, 30, 237-45 | 104 |
| 2216 | Nontargeted nucleotide analysis based on benzoylhistamine labeling-MALDI-TOF/TOF-MS: discovery of putative 6-oxo-thymine in DNA. **2012**, 84, 3811-9 | 17 |
| 2215 | Alterations of metabolic genes and metabolites in cancer. **2012**, 23, 370-80 | 84 |
| 2214 | Chronic pain: emerging evidence for the involvement of epigenetics. **2012**, 73, 435-44 | 184 |
| 2213 | Heterologous expression and purification of Arabidopsis thaliana VIM1 protein: in vitro evidence for its inability to recognize hydroxymethylcytosine, a rare base in Arabidopsis DNA. **2012**, 83, 104-11 | 25 |
| 2212 | Epiblast stem cell-based system reveals reprogramming synergy of germline factors. **2012**, 10, 425-39 | 114 |
| 2211 | Germline stem cells: origin and destiny. **2012**, 10, 729-739 | 77 |
| 2210 | Synthesis of DNA oligos containing 2'-deoxy-2'-fluoro-D-arabinofuranosyl-5-carboxylcytosine as hTDG inhibitor. **2012**, 68, 5145-5151 | 9 |

| | | |
|---|---|---|
| 2209 | DNA demethylation by TDG. **2012**, 4, 459-67 | 50 |
| 2208 | Reprogramming chromatin. **2012**, 47, 464-82 | 10 |
| 2207 | 5-Methylcytosine DNA demethylation: more than losing a methyl group. **2012**, 46, 419-41 | 94 |
| 2206 | The anti-CMS technique for genome-wide mapping of 5-hydroxymethylcytosine. **2012**, 7, 1897-908 | 69 |
| 2205 | Crystal structure of human methyl-binding domain IV glycosylase bound to abasic DNA. **2012**, 420, 164-75 | 29 |
| 2204 | TGF-□dependent active demethylation and expression of the p15ink4b tumor suppressor are impaired by the ZNF217/CoREST complex. **2012**, 46, 636-49 | 83 |
| 2203 | TGF-□drives DNA demethylation. **2012**, 46, 556-7 | 2 |
| 2202 | Reduction of DNA hydroxymethylation in the mouse kidney insulted by ischemia reperfusion. **2012**, 422, 697-702 | 51 |
| 2201 | Base-resolution analysis of 5-hydroxymethylcytosine in the mammalian genome. **2012**, 149, 1368-80 | 801 |
| 2200 | Metabolic regulation of epigenetics. **2012**, 16, 9-17 | 429 |
| 2199 | Metabolic reprogramming in cancer: unraveling the role of glutamine in tumorigenesis. **2012**, 23, 362-9 | 269 |
| 2198 | Nucleic acid modifications with epigenetic significance. **2012**, 16, 516-24 | 116 |
| 2197 | Die Sequenzierung der sechsten Base (5-Hydroxymethylcytosin): basenaufgelöste Bestimmung durch selektive DNA-Oxidation. **2012**, 124, 10862-10865 | 1 |
| 2196 | Sequencing the sixth base (5-hydroxymethylcytosine): selective DNA oxidation enables base-pair resolution. **2012**, 51, 10704-7 | 11 |
| 2195 | Strategies for discovery and validation of methylated and hydroxymethylated DNA biomarkers. **2012**, 1, 237-60 | 92 |
| 2194 | Plasticity of DNA methylation in mouse T cell activation and differentiation. **2012**, 13, 16 | 17 |
| 2193 | Myeloid malignancies: mutations, models and management. **2012**, 12, 304 | 101 |
| 2192 | Resources for methylome analysis suitable for gene knockout studies of potential epigenome modifiers. **2012**, 1, 3 | 35 |

| | | |
|---|---|---|
| 2191 | DNA methylation in plants: relationship to small RNAs and histone modifications, and functions in transposon inactivation. **2012**, 53, 766-84 | 142 |
| 2190 | Programming of DNA methylation patterns. **2012**, 81, 97-117 | 323 |
| 2189 | Epigenomic Factors in Human Obesity. **2012**, 273-296 | 1 |
| 2188 | Mind-body interrelationship in DNA methylation. **2012**, 98, 85-99 | 10 |
| 2187 | Single-molecule, genome-scale analyses of DNA modifications: exposing the epigenome with next-generation technologies. **2012**, 4, 403-14 | 10 |
| 2186 | 5-formylcytosine and 5-carboxylcytosine reduce the rate and substrate specificity of RNA polymerase II transcription. **2012**, 19, 831-3 | 181 |
| 2185 | Biologically relevant oxidants and terminology, classification and nomenclature of oxidatively generated damage to nucleobases and 2-deoxyribose in nucleic acids. **2012**, 46, 367-81 | 97 |
| 2184 | The role of DNA methylation in aging, rejuvenation, and age-related disease. **2012**, 15, 483-94 | 214 |
| 2183 | AID/APOBEC deaminases disfavor modified cytosines implicated in DNA demethylation. **2012**, 8, 751-8 | 238 |
| 2182 | CpG site-specific alteration of hydroxymethylcytosine to methylcytosine beyond DNA replication. **2012**, 426, 141-7 | 6 |
| 2181 | Mechanisms of DNA methylation and demethylation in mammals. **2012**, 94, 2202-11 | 116 |
| 2180 | Base excision repair and cancer. **2012**, 327, 73-89 | 185 |
| 2179 | Epigenetic regulation of stem cells differentiating along the neural lineage. **2012**, 22, 762-7 | 29 |
| 2178 | The potential of 2-oxoglutarate oxygenases acting on nucleic acids as therapeutic targets. **2012**, 9, e91-e100 | 9 |
| 2177 | Epigenetics of major psychosis: progress, problems and perspectives. **2012**, 28, 427-35 | 83 |
| 2176 | Tet2 facilitates the derepression of myeloid target genes during CEBP□nduced transdifferentiation of pre-B cells. **2012**, 48, 266-76 | 72 |
| 2175 | DNA methylation program during development. **2012**, 7, 485-494 | 31 |
| 2174 | DNA methylation: TET proteins-guardians of CpG islands?. **2011**, 13, 28-35 | 236 |

| | | |
|---|---|---|
| 2173 | Primordial germ cells in mice. **2012**, 4, | 224 |
| 2172 | Excision of 5-hydroxymethyluracil and 5-carboxylcytosine by the thymine DNA glycosylase domain: its structural basis and implications for active DNA demethylation. **2012**, 40, 10203-14 | 117 |
| 2171 | A density functional theory study on the kinetics and thermodynamics of N-glycosidic bond cleavage in 5-substituted 2'-deoxycytidines. **2012**, 51, 6458-62 | 20 |
| 2170 | Advances in Next Generation Sequencing Technologies and Cancer Epigenomics. **2012**, | |
| 2169 | Dynamic combinatorial mass spectrometry leads to inhibitors of a 2-oxoglutarate-dependent nucleic acid demethylase. **2012**, 55, 2173-84 | 43 |
| 2168 | Epigenetic mechanisms in commonly occurring cancers. **2012**, 31 Suppl 1, S49-61 | 24 |
| 2167 | Binding of the J-binding protein to DNA containing glucosylated hmU (base J) or 5-hmC: evidence for a rapid conformational change upon DNA binding. **2012**, 134, 13357-65 | 11 |
| 2166 | Transcriptional activation of transposable elements in mouse zygotes is independent of Tet3-mediated 5-methylcytosine oxidation. **2012**, 22, 1640-9 | 40 |
| 2165 | Dissecting epigenetic silencing complexity in the mouse lung cancer suppressor gene Cadm1. **2012**, 7, e38531 | 2 |
| 2164 | Measurements of DNA methylation at seven loci in various tissues of CD1 mice. **2012**, 7, e44585 | 15 |
| 2163 | Poly(ADP-ribosyl)ation acts in the DNA demethylation of mouse primordial germ cells also with DNA damage-independent roles. **2012**, 7, e46927 | 53 |
| 2162 | Identification of epigenetically altered genes in sporadic amyotrophic lateral sclerosis. **2012**, 7, e52672 | 105 |
| 2161 | The genetic and epigenetic journey of embryonic stem cells into mature neural cells. **2012**, 3, 81 | 39 |
| 2160 | Circulating Methylated DNA as Biomarkers for Cancer Detection. **2012**, | 1 |
| 2159 | DNA Methylation in Mammalian and Non-Mammalian Organisms. **2012**, | 2 |
| 2158 | The involvement of 5-hydroxymethylcytosine in active DNA demethylation in mice. **2012**, 86, 104 | 28 |
| 2157 | Transcriptional and epigenetic control of T helper cell specification: molecular mechanisms underlying commitment and plasticity. **2012**, 30, 707-31 | 256 |
| 2156 | Tet family proteins and 5-hydroxymethylcytosine in development and disease. **2012**, 139, 1895-902 | 266 |

| | | | |
|---|---|---|---|
| 2155 | Quantitative sequencing of 5-methylcytosine and 5-hydroxymethylcytosine at single-base resolution. *Science*, **2012**, 336, 934-7 | 33.3 | 707 |
| 2154 | Inflammation, DNA methylation and colitis-associated cancer. **2012**, 33, 723-31 | | 118 |
| 2153 | Proteins involved in establishment and maintenance of imprinted methylation marks. **2012**, 11, 227-39 | | 31 |
| 2152 | Metaboloepigenetics: interrelationships between energy metabolism and epigenetic control of gene expression. **2012**, 227, 3169-77 | | 174 |
| 2151 | Low values of 5-hydroxymethylcytosine (5hmC), the "sixth base," are associated with anaplasia in human brain tumors. **2012**, 131, 1577-90 | | 118 |
| 2150 | Epigenetic targets of some toxicologically relevant metals: a review of the literature. **2012**, 32, 643-53 | | 137 |
| 2149 | The curious chemical biology of cytosine: deamination, methylation, and oxidation as modulators of genomic potential. **2012**, 7, 20-30 | | 122 |
| 2148 | Mechanism and stem-cell activity of 5-carboxycytosine decarboxylation determined by isotope tracing. **2012**, 51, 6516-20 | | 122 |
| 2147 | PGC7 binds histone H3K9me2 to protect against conversion of 5mC to 5hmC in early embryos. **2012** , 486, 415-9 | | 355 |
| 2146 | Dynamics of DNA methylation in aging and Alzheimer's disease. **2012**, 31 Suppl 1, S42-8 | | 64 |
| 2145 | Inhibition of □KG-dependent histone and DNA demethylases by fumarate and succinate that are accumulated in mutations of FH and SDH tumor suppressors. **2012**, 26, 1326-38 | | 641 |
| 2144 | Molecular markers in acute myeloid leukaemia. **2012**, 96, 153-63 | | 27 |
| 2143 | 5-Hydroxymethylcytosine--the elusive epigenetic mark in mammalian DNA. **2012**, 41, 6916-30 | | 66 |
| 2142 | Epigenetic reprogramming in mouse pre-implantation development and primordial germ cells. **2012**, 139, 15-31 | | 298 |
| 2141 | Epigenetic cancer therapy: rationales, targets and drugs. **2012**, 31, 4257-65 | | 118 |
| 2140 | Struktur und Funktion nicht-kanonischer Nukleobasen. **2012**, 124, 7220-7242 | | 26 |
| 2139 | Mechanismus und Stammzellaktivität der Decarboxylierung von 5-Carboxycytosin, bestimmt mittels Isotopenverfolgung. **2012**, 124, 6622-6626 | | 14 |
| 2138 | Structure and function of noncanonical nucleobases. **2012**, 51, 7110-31 | | 129 |

| | | |
|---|---|---|
| 2137 | Epigenetic markers of prostate cancer in plasma circulating DNA. **2012**, 21, 3619-31 | 42 |
| 2136 | Dynamic hydroxymethylation of deoxyribonucleic acid marks differentiation-associated enhancers. **2012**, 40, 8255-65 | 146 |
| 2135 | Active DNA demethylation in mammalian preimplantation embryos: new insights and new perspectives. **2012**, 18, 333-40 | 22 |
| 2134 | Methylome analysis using MeDIP-seq with low DNA concentrations. **2012**, 7, 617-36 | 209 |
| 2133 | The early-life social environment and DNA methylation. **2012**, 81, 341-9 | 82 |
| 2132 | Uncovering the role of 5-hydroxymethylcytosine in the epigenome. **2011**, 13, 7-13 | 561 |
| 2131 | Understanding transgenerational epigenetic inheritance via the gametes in mammals. **2012**, 13, 153-62 | 510 |
| 2130 | TET2, a tumor suppressor in hematological disorders. **2012**, 1825, 173-7 | 13 |
| 2129 | Going beyond five bases in DNA sequencing. **2012**, 22, 251-61 | 99 |
| 2128 | Nutrition and epigenetics: an interplay of dietary methyl donors, one-carbon metabolism and DNA methylation. **2012**, 23, 853-9 | 452 |
| 2127 | A dynamic multi-compartmental model of DNA methylation with demonstrable predictive value in hematological malignancies. **2012**, 310, 14-20 | 22 |
| 2126 | Epigenetic and post-transcriptional dysregulation of gene expression in schizophrenia and related disease. **2012**, 46, 255-62 | 33 |
| 2125 | Active DNA demethylation by Gadd45 and DNA repair. **2012**, 22, 220-7 | 189 |
| 2124 | Silencing of endogenous retroviruses: when and why do histone marks predominate?. **2012**, 37, 127-33 | 95 |
| 2123 | Parallel mechanisms of epigenetic reprogramming in the germline. **2012**, 28, 164-74 | 142 |
| 2122 | Loss of 5-hydroxymethylcytosine is accompanied with malignant cellular transformation. **2012**, 103, 670-6 | 212 |
| 2121 | Role of TET2 mutations in myeloproliferative neoplasms. **2012**, 7, 57-64 | 26 |
| 2120 | Mutations in epigenetic regulators in myelodysplastic syndromes. **2012**, 95, 8-16 | 23 |

| | | |
|---|---|---|
| 2119 | DNA glycosylases: in DNA repair and beyond. **2012**, 121, 1-20 | 224 |
| 2118 | DNA methylation and its basic function. **2013**, 38, 23-38 | 1427 |
| 2117 | 5-Hydroxymethylcytosine is an essential intermediate of active DNA demethylation processes in primary human monocytes. **2013**, 14, R46 | 70 |
| 2116 | Potential functional roles of DNA demethylation intermediates. **2013**, 38, 480-4 | 116 |
| 2115 | Oct4 and the small molecule inhibitor, SC1, regulates Tet2 expression in mouse embryonic stem cells. **2013**, 40, 2897-906 | 22 |
| 2114 | Chemical reporters for biological discovery. **2013**, 9, 475-84 | 276 |
| 2113 | Short-term memory of danger signals and environmental stimuli in immune cells. **2013**, 14, 777-84 | 59 |
| 2112 | Understanding the Molecular Basis of RNA Polymerase II Transcription. **2013**, 53, 442 | 11 |
| 2111 | Advances in understanding the coupling of DNA base modifying enzymes to processes involving base excision repair. **2013**, 119, 63-106 | 10 |
| 2110 | Genome-wide variation of cytosine modifications between European and African populations and the implications for complex traits. **2013**, 194, 987-96 | 93 |
| 2109 | The oncogenic microRNA miR-22 targets the TET2 tumor suppressor to promote hematopoietic stem cell self-renewal and transformation. **2013**, 13, 87-101 | 237 |
| 2108 | DNA methylation and methylcytosine oxidation in cell fate decisions. **2013**, 25, 152-61 | 69 |
| 2107 | Ascorbic acid enhances Tet-mediated 5-methylcytosine oxidation and promotes DNA demethylation in mammals. **2013**, 135, 10396-403 | 402 |
| 2106 | Enhanced 5-methylcytosine detection in single-molecule, real-time sequencing via Tet1 oxidation. **2013**, 11, 4 | 96 |
| 2105 | The epigenetic switches for neural development and psychiatric disorders. **2013**, 40, 339-46 | 37 |
| 2104 | Active DNA Demethylation and 5-Hydroxymethylcytosine. **2013**, 69-83 | |
| 2103 | Role of DNMT3A, TET2, and IDH1/2 mutations in pre-leukemic stem cells in acute myeloid leukemia. **2013**, 98, 648-57 | 85 |
| 2102 | Permanent and plastic epigenesis in neuroendocrine systems. **2013**, 34, 190-7 | 27 |

| | | |
|---|---|---|
| 2101 | Oogenesis. **2013**, | 3 |
| 2100 | Concise synthesis of 5-methyl-, 5-formyl, and 5-carboxy analogues of 2?-deoxycytidine-5?-triphosphate. **2013**, 54, 5325-5327 | 11 |
| 2099 | The neuron identity problem: form meets function. **2013**, 80, 602-12 | 72 |
| 2098 | FGF signaling inhibition in ESCs drives rapid genome-wide demethylation to the epigenetic ground state of pluripotency. **2013**, 13, 351-9 | 311 |
| 2097 | Progress in mitochondrial epigenetics. **2013**, 4, 381-9 | 40 |
| 2096 | RNAi screen identifies Jarid1b as a major regulator of mouse HSC activity. **2013**, 122, 1545-55 | 53 |
| 2095 | The maternal to zygotic transition in mammals. **2013**, 34, 919-38 | 130 |
| 2094 | Mutations in regulators of the epigenome and their connections to global chromatin patterns in cancer. **2013**, 14, 765-80 | 286 |
| 2093 | Targeted DNA demethylation and activation of endogenous genes using programmable TALE-TET1 fusion proteins. **2013**, 31, 1137-42 | 368 |
| 2092 | First X-ray diffraction and quantum chemical study of proton-acceptor and proton-donor forms of 5-carboxylcytosine, the last-discovered nucleobase. **2013**, 1050, 140-150 | 6 |
| 2091 | Selective excision of 5-carboxylcytosine by a thymine DNA glycosylase mutant. **2013**, 425, 971-6 | 25 |
| 2090 | TET enzymes, TDG and the dynamics of DNA demethylation. **2013**, 502, 472-9 | 1026 |
| 2089 | Epigenetics and Cancer. **2013**, | 3 |
| 2088 | Divergent mechanisms for enzymatic excision of 5-formylcytosine and 5-carboxylcytosine from DNA. **2013**, 135, 15813-22 | 54 |
| 2087 | Vitamin C modulates TET1 function during somatic cell reprogramming. **2013**, 45, 1504-9 | 214 |
| 2086 | Higher 5-hydroxymethylcytosine identifies immortal DNA strand chromosomes in asymmetrically self-renewing distributed stem cells. **2013**, 110, 16862-7 | 22 |
| 2085 | Perspectives and future directions for epigenetics in hematology. **2013**, 121, 5131-7 | 16 |
| 2084 | Activity and crystal structure of human thymine DNA glycosylase mutant N140A with 5-carboxylcytosine DNA at low pH. **2013**, 12, 535-40 | 24 |

| | | | |
|---|---|---|---|
| 2083 | Analysis of microRNA-target interactions across diverse cancer types. **2013**, 20, 1325-32 | | 153 |
| 2082 | Studying epigenetic DNA modifications in undergraduate laboratories using complementary bioinformatic and molecular approaches. **2013**, 41, 334-40 | | 3 |
| 2081 | Crystal structure of TET2-DNA complex: insight into TET-mediated 5mC oxidation. **2013**, 155, 1545-55 | | 268 |
| 2080 | Cancer development, progression, and therapy: an epigenetic overview. **2013**, 14, 21087-113 | | 164 |
| 2079 | Epigallocatechin-3-gallate up-regulates tumor suppressor gene expression via a reactive oxygen species-dependent down-regulation of UHRF1. **2013**, 430, 208-12 | | 50 |
| 2078 | Error rates for nanopore discrimination among cytosine, methylcytosine, and hydroxymethylcytosine along individual DNA strands. **2013**, 110, 18910-5 | | 128 |
| 2077 | Social Environment and DNA Methylation: A Mechanism for Linking Nurture and Nature. **2013**, 21-35 | | 0 |
| 2076 | DNA recognition of 5-carboxylcytosine by a Zfp57 mutant at an atomic resolution of 0.97 **2013**, 52, 9310-7 | | 16 |
| 2075 | Perturbations of 5-hydroxymethylcytosine patterning in hematologic malignancies. **2013**, 50, 61-9 | | 13 |
| 2074 | Detection and mapping of 5-methylcytosine and 5-hydroxymethylcytosine with nanopore MspA. **2013**, 110, 18904-9 | | 210 |
| 2073 | Stem Cells: Current Challenges and New Directions. **2013**, | | 1 |
| 2072 | MicroRNA-26a targets ten eleven translocation enzymes and is regulated during pancreatic cell differentiation. **2013**, 110, 17892-7 | | 104 |
| 2071 | The emerging field of neuroepigenetics. **2013**, 80, 624-32 | | 227 |
| 2070 | Increasing role of UHRF1 in the reading and inheritance of the epigenetic code as well as in tumorogenesis. **2013**, 86, 1643-9 | | 75 |
| 2069 | The evolving epigenome. **2013**, 22, R1-6 | | 49 |
| 2068 | Regulation of SOD2 in cancer by histone modifications and CpG methylation: closing the loop between redox biology and epigenetics. **2013**, 18, 1946-55 | | 43 |
| 2067 | Epigenetic alterations in oncogenesis. Preface. **2013**, 754, v-vii | | 7 |
| 2066 | CRL4 complex regulates mammalian oocyte survival and reprogramming by activation of TET proteins. *Science*, **2013**, 342, 1518-21 | 33.3 | 87 |

| | | | |
|---|---|---|---|
| 2065 | Serial femtosecond crystallography of G protein-coupled receptors. *Science*, **2013**, 342, 1521-4 | 33.3 | 367 |
| 2064 | Bidirectional transcription of trinucleotide repeats: roles for excision repair. **2013**, 12, 672-84 | | 25 |
| 2063 | The biology and clinical impact of genetic lesions in myeloid malignancies. **2013**, 122, 3741-8 | | 37 |
| 2062 | Epigenetics and Complex Traits. **2013**, | | 1 |
| 2061 | DNA modifications and neurological disorders. **2013**, 10, 556-67 | | 29 |
| 2060 | Why do primordial germ cells migrate through an embryo and what does it mean for biological evolution?. **2013**, 78, 1190-9 | | |
| 2059 | Ontogeny, distribution and potential roles of 5-hydroxymethylcytosine in human liver function. **2013**, 14, R83 | | 54 |
| 2058 | PU.1 target genes undergo Tet2-coupled demethylation and DNMT3b-mediated methylation in monocyte-to-osteoclast differentiation. **2013**, 14, R99 | | 140 |
| 2057 | Epigenetic changes: a common theme in acute myelogenous leukemogenesis. **2013**, 6, 57 | | 31 |
| 2056 | Association study between SNP rs150689919 in the DNA demethylation gene, TET1, and Parkinson's disease in Chinese Han population. **2013**, 13, 196 | | 5 |
| 2055 | Oxidative bisulfite sequencing of 5-methylcytosine and 5-hydroxymethylcytosine. **2013**, 8, 1841-51 | | 241 |
| 2054 | Environmental Epigenomics in Health and Disease. **2013**, | | 2 |
| 2053 | Ascorbate-induced generation of 5-hydroxymethylcytosine is unaffected by varying levels of iron and 2-oxoglutarate. **2013**, 439, 522-7 | | 63 |
| 2052 | Systematic investigation of DNAs with modified cytosines under hot alkali treatment. **2013**, 49, 9968-70 | | 3 |
| 2051 | TET1 controls CNS 5-methylcytosine hydroxylation, active DNA demethylation, gene transcription, and memory formation. **2013**, 79, 1086-93 | | 320 |
| 2050 | Deamination, oxidation, and C-C bond cleavage reactivity of 5-hydroxymethylcytosine, 5-formylcytosine, and 5-carboxycytosine. **2013**, 135, 14593-9 | | 73 |
| 2049 | Base excision repair facilitates a functional relationship between Guanine oxidation and histone demethylation. **2013**, 18, 2429-43 | | 30 |
| 2048 | Active DNA demethylation in post-mitotic neurons: a reason for optimism. **2013**, 75, 233-45 | | 58 |

| | | | |
|---|---|---|---|
| 2047 | 5-Hydroxymethylcytosine: generation, fate, and genomic distribution. **2013**, 25, 289-96 | | 107 |
| 2046 | Mapping human epigenomes. **2013**, 155, 39-55 | | 405 |
| 2045 | Characterization of the nuclear localization signal of the mouse TET3 protein. **2013**, 439, 373-7 | | 5 |
| 2044 | Epigenetics, fragile X syndrome and transcriptional therapy. **2013**, 161A, 2797-808 | | 27 |
| 2043 | Deep C diving: mapping the low-abundance modifications of the DNA demethylation pathway. **2013**, 14, 118 | | 7 |
| 2042 | Epigenetic Reprogramming in Primordial Germ Cells in Mice. **2013**, 30, 95-100 | | |
| 2041 | Comparative analysis of affinity-based 5-hydroxymethylation enrichment techniques. **2013**, 41, e206 | | 41 |
| 2040 | Synthesis of 5-hydroxymethyl-, 5-formyl-, and 5-carboxycytidine-triphosphates and their incorporation into oligonucleotides by polymerase chain reaction. **2013**, 15, 366-9 | | 28 |
| 2039 | DNA repair by reversal of DNA damage. **2013**, 5, a012575 | | 91 |
| 2038 | How Genetic Transmission Works. **2013**, 17-55 | | |
| 2037 | Reprogramming DNA methylation in the mammalian life cycle: building and breaking epigenetic barriers. **2013**, 368, 20110330 | | 311 |
| 2036 | Epigenetic mechanisms of depression and antidepressant action. **2013**, 53, 59-87 | | 194 |
| 2035 | Germline DNA demethylation dynamics and imprint erasure through 5-hydroxymethylcytosine. *Science*, **2013**, 339, 448-52 | 33.3 | 576 |
| 2034 | Embryonic stem cell and induced pluripotent stem cell: an epigenetic perspective. **2013**, 23, 49-69 | | 127 |
| 2033 | ALKBH5 is a mammalian RNA demethylase that impacts RNA metabolism and mouse fertility. **2013**, 49, 18-29 | | 1627 |
| 2032 | Epigenetic regulation in pluripotent stem cells: a key to breaking the epigenetic barrier. **2013**, 368, 20120292 | | 85 |
| 2031 | Methods for cancer epigenome analysis. **2013**, 754, 313-38 | | 21 |
| 2030 | Epigenetics: the link between nature and nurture. **2013**, 34, 753-64 | | 237 |

| | | |
|---|---|---|
| 2029 | High-resolution enzymatic mapping of genomic 5-hydroxymethylcytosine in mouse embryonic stem cells. **2013**, 3, 567-76 | 134 |
| 2028 | An extensive network of TET2-targeting MicroRNAs regulates malignant hematopoiesis. **2013**, 5, 471-81 | 109 |
| 2027 | A common mode of recognition for methylated CpG. **2013**, 38, 177-83 | 78 |
| 2026 | Epigenetic changes in the progression of Alzheimer's disease. **2013**, 134, 486-95 | 129 |
| 2025 | Cytosine 5-Hydroxymethylation of the LZTS1 Gene Is Reduced in Breast Cancer. **2013**, 6, 715-21 | 16 |
| 2024 | Ten-eleven translocation (Tet) and thymine DNA glycosylase (TDG), components of the demethylation pathway, are direct targets of miRNA-29a. **2013**, 437, 368-73 | 71 |
| 2023 | DNA base damage by reactive oxygen species, oxidizing agents, and UV radiation. **2013**, 5, | 478 |
| 2022 | Molecular pathophysiology of myelodysplastic syndromes. **2013**, 8, 21-47 | 57 |
| 2021 | O-GlcNAcylation and 5-methylcytosine oxidation: an unexpected association between OGT and TETs. **2013**, 49, 618-9 | 10 |
| 2020 | Dynamic readers for 5-(hydroxy)methylcytosine and its oxidized derivatives. **2013**, 152, 1146-59 | 748 |
| 2019 | Selective chemical labelling of 5-formylcytosine in DNA by fluorescent dyes. **2013**, 19, 5836-40 | 43 |
| 2018 | Genome-wide DNA methylation analysis using massively parallel sequencing technologies. **2013**, 50, 70-7 | 10 |
| 2017 | Epigenetics in fertilization and preimplantation embryo development. **2013**, 113, 423-32 | 55 |
| 2016 | Oxygen, epigenetic signaling, and the evolution of early life. **2013**, 38, 172-6 | 26 |
| 2015 | Different roles for Tet1 and Tet2 proteins in reprogramming-mediated erasure of imprints induced by EGC fusion. **2013**, 49, 1023-33 | 75 |
| 2014 | Ten eleven translocation enzymes and 5-hydroxymethylation in mammalian development and cancer. **2013**, 754, 57-79 | 51 |
| 2013 | A critical role for AID in the initiation of reprogramming to induced pluripotent stem cells. **2013**, 27, 1107-13 | 30 |
| 2012 | Small-molecular modulators of cancer-associated epigenetic mechanisms. **2013**, 9, 873-96 | 39 |

| | | |
|---|---|---|
| 2011 | Epigenetics in sports. **2013**, 43, 93-110 | 40 |
| 2010 | Meta-analysis followed by replication identifies loci in or near CDKN1B, TET3, CD80, DRAM1, and ARID5B as associated with systemic lupus erythematosus in Asians. **2013**, 92, 41-51 | 144 |
| 2009 | Breathing-in epigenetic change with vitamin C. **2013**, 14, 337-46 | 94 |
| 2008 | Genetic and epigenetic associations of MAOA and NR3C1 with depression and childhood adversities. **2013**, 16, 1513-28 | 153 |
| 2007 | Tet-mediated covalent labelling of 5-methylcytosine for its genome-wide detection and sequencing. **2013**, 4, 1517 | 42 |
| 2006 | Epigenomics: sequencing the methylome. **2013**, 973, 39-54 | 2 |
| 2005 | The good, the bad and the ugly: epigenetic mechanisms in glioblastoma. **2013**, 34, 849-62 | 40 |
| 2004 | Environmental toxicants, epigenetics, and cancer. **2013**, 754, 215-32 | 87 |
| 2003 | Mass spectrometry of structurally modified DNA. **2013**, 113, 2395-436 | 96 |
| 2002 | Genetic and epigenetic alterations of myeloproliferative disorders. **2013**, 97, 183-97 | 47 |
| 2001 | Epigenetic programming and reprogramming during development. **2013**, 20, 282-9 | 310 |
| 2000 | A sweet TET-ˆ-tDe-synergy of TET proteins and O-GlcNAc transferase in transcription. **2013**, 32, 612-3 | 9 |
| 1999 | Epigenetic flexibility in metabolic regulation: disease cause and prevention?. **2013**, 23, 203-9 | 106 |
| 1998 | Interplay between the cancer genome and epigenome. **2013**, 153, 38-55 | 588 |
| 1997 | Influence of metabolism on epigenetics and disease. **2013**, 153, 56-69 | 599 |
| 1996 | Non-canonical functions of the DNA methylome in gene regulation. **2013**, 451, 13-23 | 66 |
| 1995 | Combined deficiency of Tet1 and Tet2 causes epigenetic abnormalities but is compatible with postnatal development. **2013**, 24, 310-23 | 320 |
| 1994 | Epigenetic regulation of vascular smooth muscle cell function in atherosclerosis. **2013**, 15, 319 | 29 |

| | | |
|---|---|---|
| 1993 | Genomic imprinting is a parental effect established in mammalian germ cells. **2013**, 102, 35-59 | 13 |
| 1992 | Single-molecule detection of 5-hydroxymethylcytosine in DNA through chemical modification and nanopore analysis. **2013**, 52, 4350-5 | 53 |
| 1991 | Next-generation-sequencing-based risk stratification and identification of new genes involved in structural and sequence variations in near haploid lymphoblastic leukemia. **2013**, 52, 564-79 | 20 |
| 1990 | Integrated detection of both 5-mC and 5-hmC by high-throughput tag sequencing technology highlights methylation reprogramming of bivalent genes during cellular differentiation. **2013**, 8, 421-30 | 25 |
| 1989 | Epigenomics and the regulation of aging. **2013**, 5, 205-27 | 42 |
| 1988 | Functions of DNA methylation and hydroxymethylation in mammalian development. **2013**, 104, 47-83 | 116 |
| 1987 | Epigenetic therapy: use of agents targeting deacetylation and methylation in cancer management. **2013**, 6, 223-32 | 30 |
| 1986 | Genome-wide profiling of 5-formylcytosine reveals its roles in epigenetic priming. **2013**, 153, 678-91 | 453 |
| 1985 | Genome-wide analysis reveals TET- and TDG-dependent 5-methylcytosine oxidation dynamics. **2013** , 153, 692-706 | 390 |
| 1984 | Potent methyl oxidation of 5-methyl-2'-deoxycytidine by halogenated quinoid carcinogens and hydrogen peroxide via a metal-independent mechanism. **2013**, 60, 177-82 | 36 |
| 1983 | Modulation of TET2 expression and 5-methylcytosine oxidation by the CXXC domain protein IDAX. **2013**, 497, 122-6 | 265 |
| 1982 | Entering the era of bacterial epigenomics with single molecule real time DNA sequencing. **2013**, 16, 192-8 | 87 |
| 1981 | FTO-mediated formation of N6-hydroxymethyladenosine and N6-formyladenosine in mammalian RNA. **2013**, 4, 1798 | 255 |
| 1980 | Epigenetic mechanisms of drug addiction. **2013**, 23, 521-8 | 86 |
| 1979 | Selective detection of 5-formyl-2'-deoxycytidine in DNA using a fluorogenic hydroxylamine reagent. **2013**, 15, 3266-9 | 50 |
| 1978 | Conceptual links between DNA methylation reprogramming in the early embryo and primordial germ cells. **2013**, 25, 281-8 | 95 |
| 1977 | Developmental and environmental epigenetic programming of the endocrine pancreas: consequences for type 2 diabetes. **2013**, 70, 1575-95 | 36 |
| 1976 | A replication-dependent passive mechanism modulates DNA demethylation in mouse primordial germ cells. **2013**, 140, 2892-903 | 62 |

| | | |
|---|---|---|
| 1975 | Epigenetic mechanisms in Alzheimer's disease: implications for pathogenesis and therapy. **2013**, 12, 1024-41 | 90 |
| 1974 | Chemical modification-assisted bisulfite sequencing (CAB-Seq) for 5-carboxylcytosine detection in DNA. **2013**, 135, 9315-7 | 100 |
| 1973 | Dynamics of 5-hydroxymethylcytosine during mouse spermatogenesis. **2013**, 4, 1995 | 139 |
| 1972 | Hydrophilic material for the selective enrichment of 5-hydroxymethylcytosine and its liquid chromatography-tandem mass spectrometry detection. **2013**, 85, 6129-35 | 46 |
| 1971 | Enrichment of methylated DNA by methyl-CpG immunoprecipitation. **2013**, 971, 201-12 | 14 |
| 1970 | TETonic shift: biological roles of TET proteins in DNA demethylation and transcription. **2013**, 14, 341-56 | 627 |
| 1969 | New advances of DNA methylation in liver fibrosis, with special emphasis on the crosstalk between microRNAs and DNA methylation machinery. **2013**, 25, 1837-44 | 21 |
| 1968 | Tet family of 5-methylcytosine dioxygenases in mammalian development. **2013**, 58, 421-7 | 54 |
| 1967 | Locus-specific DNA methylation reprogramming during early porcine embryogenesis. **2013**, 88, 48 | 26 |
| 1966 | A selective turn-on fluorescence strategy for the detection of 5-hydroxymethyl-2?-deoxycytidine. **2013**, 3, 12066 | 3 |
| 1965 | Molecular subtypes of glioma identified by genome-wide methylation profiling. **2013**, 52, 665-74 | 21 |
| 1964 | 5-hydroxymethylcytosine and its potential roles in development and cancer. **2013**, 6, 10 | 134 |
| 1963 | DNA methylome alterations in chemical carcinogenesis. **2013**, 334, 39-45 | 36 |
| 1962 | Epigenetics in the heart: the role of histone modifications in cardiac remodelling. **2013**, 41, 789-96 | 26 |
| 1961 | A simple but effective modeling strategy for structural properties of non-heme Fe(II) sites in proteins: test of force field models and application to proteins in the AlkB family. **2013**, 34, 1620-35 | 9 |
| 1960 | On the potential role of active DNA demethylation in establishing epigenetic states associated with neural plasticity and memory. **2013**, 105, 125-32 | 31 |
| 1959 | Mammalian DNA demethylation: multiple faces and upstream regulation. **2013**, 8, 679-84 | 23 |
| 1958 | Roles of repressive epigenetic machinery in lineage decision of T cells. **2013**, 139, 151-7 | 11 |

| | | |
|---|---|---|
| 1957 | Quantification of 5-methylcytosine and 5-hydroxymethylcytosine in genomic DNA from hepatocellular carcinoma tissues by capillary hydrophilic-interaction liquid chromatography/quadrupole TOF mass spectrometry. **2013**, 59, 824-32 | 113 |
| 1956 | A mechanistic overview of TET-mediated 5-methylcytosine oxidation. **2013**, 436, 115-20 | 40 |
| 1955 | Recent advances in the structural mechanisms of DNA glycosylases. **2013**, 1834, 247-71 | 117 |
| 1954 | Metabolic alteration in tumorigenesis. **2013**, 56, 1067-75 | 14 |
| 1953 | Epigenetic aspects of MDS and its molecular targeted therapy. **2013**, 97, 175-82 | 21 |
| 1952 | Toward pluripotency by reprogramming: mechanisms and application. **2013**, 4, 820-32 | 16 |
| 1951 | Gadd45 Stress Sensor Genes. **2013**, | 1 |
| 1950 | TET proteins: on the frenetic hunt for new cytosine modifications. **2013**, 12, 191-204 | 34 |
| 1949 | Fluorescent strategy based on cationic conjugated polymer fluorescence resonance energy transfer for the quantification of 5-(hydroxymethyl)cytosine in genomic DNA. **2013**, 85, 10797-802 | 25 |
| 1948 | Resetting epigenetic signatures to induce somatic cell reprogramming. **2013**, 70, 1413-24 | 5 |
| 1947 | APC and DNA demethylation in cell fate specification and intestinal cancer. **2013**, 754, 167-77 | 5 |
| 1946 | Mutations in isocitrate dehydrogenase 1 and 2 occur frequently in intrahepatic cholangiocarcinomas and share hypermethylation targets with glioblastomas. **2013**, 32, 3091-100 | 277 |
| 1945 | Tumor development is associated with decrease of TET gene expression and 5-methylcytosine hydroxylation. **2013**, 32, 663-9 | 424 |
| 1944 | Tight correlation of 5-hydroxymethylcytosine and Polycomb marks in health and disease. **2013**, 12, 1835-41 | 21 |
| 1943 | 5-hydroxymethylcytosine profiling as an indicator of cellular state. **2013**, 5, 655-69 | 46 |
| 1942 | PGC7, H3K9me2 and Tet3: regulators of DNA methylation in zygotes. **2013**, 23, 6-9 | 20 |
| 1941 | Crystal structures of isoorotate decarboxylases reveal a novel catalytic mechanism of 5-carboxyl-uracil decarboxylation and shed light on the search for DNA decarboxylase. **2013**, 23, 1296-309 | 42 |
| 1940 | Meta-analysis of IDH-mutant cancers identifies EBF1 as an interaction partner for TET2. **2013**, 4, 2166 | 127 |

| | | |
|---|---|---|
| 1939 | What a difference a hydroxyl makes: mutant IDH, (R)-2-hydroxyglutarate, and cancer. **2013**, 27, 836-52 | 395 |
| 1938 | Global DNA hypermethylation in down syndrome placenta. **2013**, 9, e1003515 | 63 |
| 1937 | Recent advances in the bioanalysis of modified nucleotides in epigenetic studies. **2013**, 5, 2947-56 | 1 |
| 1936 | Epigenetic reprogramming: preparing the epigenome for the next generation. **2013**, 41, 809-14 | 15 |
| 1935 | MLML: consistent simultaneous estimates of DNA methylation and hydroxymethylation. **2013**, 29, 2645-6 | 33 |
| 1934 | O-GlcNAcylation: A New Cancer Hallmark?. **2013**, 4, 99 | 161 |
| 1933 | Embryo manipulation via assisted reproductive technology and epigenetic asymmetry in mammalian early development. **2013**, 368, 20120353 | 25 |
| 1932 | Genetic and Epigenetic Regulation in Age-related Macular Degeneration. **2013**, 2, 269-74 | 4 |
| 1931 | The mysterious presence of a 5-methylcytosine oxidase in the Drosophila genome: possible explanations. **2013**, 12, 3357-65 | 30 |
| 1930 | Nonenzymatic labeling of 5-hydroxymethylcytosine in nanopore sequencing. **2013**, 14, 1289-90 | 6 |
| 1929 | Alteration of genic 5-hydroxymethylcytosine patterning in olfactory neurons correlates with changes in gene expression and cell identity. **2013**, 110, 14682-7 | 81 |
| 1928 | HMGA2/TET1/HOXA9 signaling pathway regulates breast cancer growth and metastasis. **2013**, 110, 9920-5 | 191 |
| 1927 | Crystal structures of B-DNA dodecamer containing the epigenetic modifications 5-hydroxymethylcytosine or 5-methylcytosine. **2013**, 41, 9891-900 | 55 |
| 1926 | Recent Updates on Epigenetic Biomarkers for Prostate Cancer. **2013**, 129-150 | 2 |
| 1925 | Dynamic changes in 5-hydroxymethylation signatures underpin early and late events in drug exposed liver. **2013**, 41, 5639-54 | 70 |
| 1924 | Hydroxymethylation- and methylation-sensitive tag sequencing: how will this technology change clinical applications of DNA methylation profiling?. **2013**, 5, 355-7 | 3 |
| 1923 | Meeting the methodological challenges in molecular mapping of the embryonic epigenome. **2013**, 19, 809-27 | 10 |
| 1922 | Genome-wide comparison of DNA hydroxymethylation in mouse embryonic stem cells and neural progenitor cells by a new comparative hMeDIP-seq method. **2013**, 41, e84 | 68 |

| | | |
|---|---|---|
| 1921 | Quantitative assessment of Tet-induced oxidation products of 5-methylcytosine in cellular and tissue DNA. **2013**, 41, 6421-9 | 110 |
| 1920 | miR-29 represses the activities of DNA methyltransferases and DNA demethylases. **2013**, 14, 14647-58 | 93 |
| 1919 | TET proteins and 5-methylcytosine oxidation in the immune system. **2013**, 78, 1-10 | 25 |
| 1918 | UnTEThering (smooth muscle) cell plasticity. **2013**, 128, 2002-4 | 1 |
| 1917 | Epigenetic studies in Alzheimer's disease: current findings, caveats, and considerations for future studies. **2013**, 162B, 789-99 | 58 |
| 1916 | Evaluation of UDP-GlcN derivatives for selective labeling of 5-(hydroxymethyl)cytosine. **2013**, 14, 2144-52 | 5 |
| 1915 | Dynamics of 5-methylcytosine and 5-hydroxymethylcytosine during germ cell reprogramming. **2013**, 23, 329-39 | 125 |
| 1914 | Computational identification of novel biochemical systems involved in oxidation, glycosylation and other complex modifications of bases in DNA. **2013**, 41, 7635-55 | 83 |
| 1913 | DNA methylation dynamics during the mammalian life cycle. **2013**, 368, 20110328 | 202 |
| 1912 | TET1 plays an essential oncogenic role in MLL-rearranged leukemia. **2013**, 110, 11994-9 | 147 |
| 1911 | Lymphoma. **2013**, | |
| 1910 | Ten-eleven translocation-2 (TET2) is a master regulator of smooth muscle cell plasticity. **2013**, 128, 2047-57 | 164 |
| 1909 | DNA methylation in cancer: a gene silencing mechanism and the clinical potential of its biomarkers. **2013**, 229, 173-85 | 62 |
| 1908 | Regulation and Function of DNA and Histone Methylations. **2013**, 19, 719-733 | 8 |
| 1907 | Genome-wide profiling identifies a DNA methylation signature that associates with TET2 mutations in diffuse large B-cell lymphoma. **2013**, 98, 1912-20 | 98 |
| 1906 | Single-Molecule Detection of 5-Hydroxymethylcytosine in DNA through Chemical Modification and Nanopore Analysis. **2013**, 125, 4446-4451 | 9 |
| 1905 | A screen for hydroxymethylcytosine and formylcytosine binding proteins suggests functions in transcription and chromatin regulation. **2013**, 14, R119 | 237 |
| 1904 | DNA demethylation pathways: recent insights. **2013**, 5, 43-9 | 7 |

| | | |
|---|---|---|
| 1903 | Roles for Tbx3 in regulation of two-cell state and telomere elongation in mouse ES cells. **2013**, 3, 3492 | 32 |
| 1902 | [Development of selective detection method for 5-formyl-2'-deoxyuridine in DNA using a fluorogenic reagent]. **2013**, 133, 1041-53 | |
| 1901 | Epigenetic Re-Programming during Mammalian Preimplantation Embryogenesis and PGC Development. **2013**, 01, | 1 |
| 1900 | Mechanism of Active DNA Demethylation: Recent Progress in Epigenetics. **2013**, 01, | 2 |
| 1899 | Drug Addiction and Reward. **2013**, 173-195 | 1 |
| 1898 | Intrinsic and extrinsic connections of Tet3 dioxygenase with CXXC zinc finger modules. **2013**, 8, e62755 | 31 |
| 1897 | Decrease of 5-hydroxymethylcytosine is associated with progression of hepatocellular carcinoma through downregulation of TET1. **2013**, 8, e62828 | 118 |
| 1896 | Association of 5-methylcytosine and 5-hydroxymethylcytosine with mitochondrial DNA content and clinical and biochemical parameters in hepatocellular carcinoma. **2013**, 8, e76967 | 8 |
| 1895 | Detection of oxidation products of 5-methyl-2'-deoxycytidine in Arabidopsis DNA. **2013**, 8, e84620 | 23 |
| 1894 | Interindividual Variability in Stress Susceptibility: A Role for Epigenetic Mechanisms in PTSD. **2013**, 4, 60 | 44 |
| 1893 | Alterations of 5-hydroxymethylcytosine in human cancers. **2013**, 5, 786-814 | 35 |
| 1892 | The molecular basis of acute myeloid leukemia. 751-768 | |
| 1891 | Chromatin Structure and Intellectual Disability Syndromes. **2013**, | 2 |
| 1890 | Synthesis of novel derivatives of 5-hydroxymethylcytosine and 5-formylcytosine as tools for epigenetics. **2014**, 10, 7-11 | 1 |
| 1889 | Loss of function of TET2 cooperates with constitutively active KIT in murine and human models of mastocytosis. **2014**, 9, e96209 | 26 |
| 1888 | Facile enzymatic synthesis of base J-containing oligodeoxyribonucleotides and an analysis of the impact of base J on DNA replication in cells. **2014**, 9, e103335 | 3 |
| 1887 | Epigenetic modifications and potential new treatment targets in diabetic retinopathy. **2014**, 2014, 789120 | 21 |
| 1886 | Epigenetics in T-cell Development and Function. **2014**, 5, 161-170 | 1 |

| | | |
|---|---|---|
| 1885 | The emerging role of 5-hydroxymethylcytosine in neurodegenerative diseases. **2014**, 8, 397 | 68 |
| 1884 | Prolyl hydroxylase domain enzymes: important regulators of cancer metabolism. **2014**, 2, 127-142 | 28 |
| 1883 | [TET-OGT interaction potentiates transcription by regulating histone H3 methylation]. **2014**, 30, 619-21 | 1 |
| 1882 | Structural and mutation studies of two DNA demethylation related glycosylases: MBD4 and TDG. **2014**, 10, 63-8 | 3 |
| 1881 | A nucleolin-DNMT1 regulatory axis in acute myeloid leukemogenesis. **2014**, 5, 5494-509 | 41 |
| 1880 | 5-Hydroxymethylcytosine plays a critical role in glioblastomagenesis by recruiting the CHTOP-methylosome complex. **2014**, 9, 48-60 | 77 |
| 1879 | Epigenetic regulatory mechanisms in stress-induced behavior. **2014**, 115, 117-54 | 20 |
| 1878 | Structure of human RNA N□methyladenine demethylase ALKBH5 provides insights into its mechanisms of nucleic acid recognition and demethylation. **2014**, 42, 4741-54 | 117 |
| 1877 | Wilms tumor protein recognizes 5-carboxylcytosine within a specific DNA sequence. **2014**, 28, 2304-13 | 91 |
| 1876 | A B-cell targeting virus disrupts potentially protective genomic methylation patterns in lymphoid tissue by increasing global 5-hydroxymethylcytosine levels. **2014**, 45, 108 | 1 |
| 1875 | Epigenetics of schizophrenia: an open and shut case. **2014**, 115, 155-201 | 17 |
| 1874 | Thymine DNA glycosylase is a CRL4Cdt2 substrate. **2014**, 289, 23043-23055 | 30 |
| 1873 | Integrated analyses of DNA methylation and hydroxymethylation reveal tumor suppressive roles of ECM1, ATF5, and EOMES in human hepatocellular carcinoma. **2014**, 15, 533 | 37 |
| 1872 | Hydroxyl-radical-induced oxidation of 5-methylcytosine in isolated and cellular DNA. **2014**, 42, 7450-60 | 88 |
| 1871 | Induced DNA demethylation by targeting Ten-Eleven Translocation 2 to the human ICAM-1 promoter. **2014**, 42, 1563-74 | 113 |
| 1870 | Understanding the structural and dynamic consequences of DNA epigenetic modifications: computational insights into cytosine methylation and hydroxymethylation. **2014**, 9, 1604-12 | 26 |
| 1869 | Biological and biochemical modulation of DNA methylation. **2014**, 6, 593-602 | 17 |
| 1868 | 5-Hydroxymethylcytosine promotes proliferation of human uterine leiomyoma: a biological link to a new epigenetic modification in benign tumors. **2014**, 99, E2437-45 | 29 |

| | | |
|---|---|---|
| 1867 | Epigenetic modification of Nrf2 in 5-fluorouracil-resistant colon cancer cells: involvement of TET-dependent DNA demethylation. **2014**, 5, e1183 | 108 |
| 1866 | Epigenetics of Cardiovascular Disease - A New "Beat" in Coronary Artery Disease. **2014**, 2, 37-52 | 35 |
| 1865 | 5-hydroxymethylcytosine: a potential therapeutic target in cancer. **2014**, 6, 503-14 | 18 |
| 1864 | Identification of the glucosyltransferase that converts hydroxymethyluracil to base J in the trypanosomatid genome. **2014**, 289, 20273-82 | 44 |
| 1863 | Epigenetics and Cardiovascular Disease. **2014**, 747-782 | |
| 1862 | TET-mediated oxidation of methylcytosine causes TDG or NEIL glycosylase dependent gene reactivation. **2014**, 42, 8592-604 | 69 |
| 1861 | The emerging nexus of active DNA demethylation and mitochondrial oxidative metabolism in post-mitotic neurons. **2014**, 15, 22604-25 | 9 |
| 1860 | Pathogenic microRNA's in myeloid malignancies. **2014**, 5, 361 | 31 |
| 1859 | The C6 configuration and syn/anti conformational preference of the bisulfite adducts of deoxyuridine and deoxycytidine by NMR and DFT calculations. **2014**, 25, 1355-1359 | 1 |
| 1858 | Independently specified Atoh1 domains define novel developmental compartments in rhombomere 1. **2014**, 141, 389-98 | 26 |
| 1857 | TET2 Inhibits Differentiation of Embryonic Stem Cells but Does Not Overcome Methylation-Induced Gene Silencing. **2014**, 2014, 986571 | 2 |
| 1856 | Antioxidants: A Premature Scientific Hypothesis that Reshuffled the Traditional Food Pyramid. **2014**, 15-28 | |
| 1855 | Endonuclease G preferentially cleaves 5-hydroxymethylcytosine-modified DNA creating a substrate for recombination. **2014**, 42, 13280-93 | 14 |
| 1854 | MBD2 and MBD3: elusive functions and mechanisms. **2014**, 5, 428 | 41 |
| 1853 | Epigenetic upregulation of large-conductance Ca2+-activated K+ channel expression in uterine vascular adaptation to pregnancy. **2014**, 64, 610-8 | 30 |
| 1852 | O-GlcNAcylation, an Epigenetic Mark. Focus on the Histone Code, TET Family Proteins, and Polycomb Group Proteins. **2014**, 5, 155 | 48 |
| 1851 | The roles of Jumonji-type oxygenases in human disease. **2014**, 6, 89-120 | 122 |
| 1850 | Genome-wide bisulfite sequencing in zygotes identifies demethylation targets and maps the contribution of TET3 oxidation. **2014**, 9, 1990-2000 | 95 |

| | | |
|---|---|---|
| 1849 | Epigenetic pathway targets for the treatment of disease: accelerating progress in the development of pharmacological tools: IUPHAR Review 11. **2014**, 171, 4981-5010 | 21 |
| 1848 | Beyond transcriptional silencing: is methylcytosine a widely conserved eukaryotic DNA elimination mechanism?. **2014**, 36, 346-52 | 10 |
| 1847 | Structure of 5-hydroxymethylcytosine-specific restriction enzyme, AbaSI, in complex with DNA. **2014**, 42, 7947-59 | 25 |
| 1846 | A bioinspired catalytic oxygenase cascade to generate complex oxindoles. **2014**, 53, 7514-8 | 13 |
| 1845 | Epigenetic Therapy of Cancer. **2014**, | |
| 1844 | DNA methylation and demethylation: a pathway to gametogenesis and development. **2014**, 81, 113-25 | 32 |
| 1843 | Dynamics of ten-eleven translocation hydroxylase family proteins and 5-hydroxymethylcytosine in oligodendrocyte differentiation. **2014**, 62, 914-26 | 38 |
| 1842 | Osteoarthritis year in review 2014: genetics and genomics. **2014**, 22, 2017-24 | 78 |
| 1841 | Simultaneous sequencing of oxidized methylcytosines produced by TET/JBP dioxygenases in Coprinopsis cinerea. **2014**, 111, E5149-58 | 21 |
| 1840 | Computational studies of the gas-phase thermochemical properties of modified nucleobases. **2014**, 79, 11295-300 | 7 |
| 1839 | TET-catalyzed 5-methylcytosine hydroxylation is dynamically regulated by metabolites. **2014**, 24, 1017-20 | 42 |
| 1838 | TET2 as an epigenetic master regulator for normal and malignant hematopoiesis. **2014**, 105, 1093-9 | 63 |
| 1837 | Integrating DNA methylation dynamics into a framework for understanding epigenetic codes. **2014**, 36, 107-17 | 33 |
| 1836 | RING finger protein 4 (RNF4) derepresses gene expression from DNA methylation. **2014**, 289, 33808-13 | 8 |
| 1835 | 5-Hydroxymethylcytosine and disease. **2014**, 762, 167-75 | 38 |
| 1834 | Environmentally Induced Epigenetic Modifications and Transgenerational Effects. **2014**, 166-193 | |
| 1833 | Epigenetics in the hematologic malignancies. **2014**, 99, 1772-83 | 48 |
| 1832 | A Bioinspired Catalytic Oxygenase Cascade to Generate Complex Oxindoles. **2014**, 126, 7644-7648 | 6 |

| | | |
|---|---|---|
| 1831 | DNA methylation and its role in the trophoblast cell lineage. **2014**, 58, 231-8 | 9 |
| 1830 | Whole-genome analysis of 5-hydroxymethylcytosine and 5-methylcytosine at base resolution in the human brain. **2014**, 15, R49 | 199 |
| 1829 | Dynamic changes in DNA modification states during late gestation male germ line development in the rat. **2014**, 7, 19 | 11 |
| 1828 | Increased 5-hydroxymethylcytosine and decreased 5-methylcytosine are indicators of global epigenetic dysregulation in diffuse intrinsic pontine glioma. **2014**, 2, 59 | 30 |
| 1827 | TET1 regulates hypoxia-induced epithelial-mesenchymal transition by acting as a co-activator. **2014**, 15, 513 | 104 |
| 1826 | Metabolic control of the epigenome in systemic Lupus erythematosus. **2014**, 47, 256-64 | 47 |
| 1825 | Suppression of TET1-dependent DNA demethylation is essential for KRAS-mediated transformation. **2014**, 9, 1827-1840 | 48 |
| 1824 | 5-methylcytosine and its derivatives. **2014**, 67, 151-87 | 22 |
| 1823 | Distinct roles of the methylcytosine oxidases Tet1 and Tet2 in mouse embryonic stem cells. **2014**, 111, 1361-6 | 186 |
| 1822 | Active DNA demethylation of the vertebrate genomes by DNA methyltransferases: deaminase, dehydroxymethylase or demethylase?. **2014**, 6, 353-63 | 20 |
| 1821 | Isocitrate dehydrogenase mutations in chondrosarcoma: the crossroads between cellular metabolism and oncogenesis. **2014**, 26, 403-7 | 6 |
| 1820 | PGC7 suppresses TET3 for protecting DNA methylation. **2014**, 42, 2893-905 | 47 |
| 1819 | The complex methylome of the human gastric pathogen Helicobacter pylori. **2014**, 42, 2415-32 | 86 |
| 1818 | A global increase in 5-hydroxymethylcytosine levels marks osteoarthritic chondrocytes. **2014**, 66, 90-100 | 42 |
| 1817 | TET1 is a maintenance DNA demethylase that prevents methylation spreading in differentiated cells. **2014**, 42, 6956-71 | 90 |
| 1816 | Synthesis of a DNA promoter segment containing all four epigenetic nucleosides: 5-methyl-, 5-hydroxymethyl-, 5-formyl-, and 5-carboxy-2'-deoxycytidine. **2014**, 53, 315-8 | 32 |
| 1815 | DNA Methylation Abnormalities in Hematopoietic Disorders: Biological Significance and Methodological Approaches. **2014**, 107-120 | |
| 1814 | Characterization of acute myeloid leukemia based on levels of global hydroxymethylation. **2014**, 124, 1110-8 | 66 |

| | | |
|---|---|---|
| 1813 | De novo DNA methylation of the paternal genome in 2-cell mouse embryos. **2014**, 13, 8632-9 | 3 |
| 1812 | Regulation of LINE-1 in mammals. **2014**, 5, 409-28 | 14 |
| 1811 | Structural basis for Klf4 recognition of methylated DNA. **2014**, 42, 4859-67 | 65 |
| 1810 | Highlights from the latest articles in epigenomics. **2014**, 6, 17-9 | |
| 1809 | TET2 overexpression in chronic lymphocytic leukemia is unrelated to the presence of TET2 variations. **2014**, 2014, 814294 | 11 |
| 1808 | TET2 plays an essential role in erythropoiesis by regulating lineage-specific genes via DNA oxidative demethylation in a zebrafish model. **2014**, 34, 989-1002 | 43 |
| 1807 | Epigenetic regulation of a brain-specific glycosyltransferase N-acetylglucosaminyltransferase-IX (GnT-IX) by specific chromatin modifiers. **2014**, 289, 11253-11261 | 39 |
| 1806 | Aberrant repair initiated by mismatch-specific thymine-DNA glycosylases provides a mechanism for the mutational bias observed in CpG islands. **2014**, 42, 6300-13 | 15 |
| 1805 | Genome-wide alteration of 5-hydroxymethylcytosine in a mouse model of fragile X-associated tremor/ataxia syndrome. **2014**, 23, 1095-107 | 49 |
| 1804 | The epigenome and cancer prevention: A complex story of dietary supplementation. **2014**, 342, 275-84 | 18 |
| 1803 | TET enzymatic oxidation of 5-methylcytosine, 5-hydroxymethylcytosine and 5-formylcytosine. **2014** , 764-765, 18-35 | 37 |
| 1802 | DNA methylation and childhood maltreatment: from animal models to human studies. **2014**, 264, 142-56 | 177 |
| 1801 | Regulation of TET protein stability by calpains. **2014**, 6, 278-84 | 68 |
| 1800 | Rare insights into cancer biology. **2014**, 33, 2547-56 | 66 |
| 1799 | Origins of aberrant DNA methylation in acute myeloid leukemia. **2014**, 28, 1-14 | 98 |
| 1798 | Cytosine modifications in neurodevelopment and diseases. **2014**, 71, 405-18 | 22 |
| 1797 | Understanding the relationship between DNA methylation and histone lysine methylation. **2014**, 1839, 1362-72 | 323 |
| 1796 | Dynamic epigenetic responses to muscle contraction. **2014**, 19, 1010-4 | 25 |

| | | |
|---|---|---|
| 1795 | The dynamic epitranscriptome: N6-methyladenosine and gene expression control. **2014**, 15, 313-26 | 545 |
| 1794 | Gene expression regulation mediated through reversible m⁶A RNA methylation. **2014**, 15, 293-306 | 905 |
| 1793 | Systematic investigations of different cytosine modifications on CpG dinucleotide sequences: the effects on the B-Z transition. **2014**, 136, 56-9 | 21 |
| 1792 | Genome-wide antagonism between 5-hydroxymethylcytosine and DNA methylation in the adult mouse brain. **2014**, 9, 66-74 | 21 |
| 1791 | A TET homologue protein from Coprinopsis cinerea (CcTET) that biochemically converts 5-methylcytosine to 5-hydroxymethylcytosine, 5-formylcytosine, and 5-carboxylcytosine. **2014**, 136, 4801-4 | 37 |
| 1790 | CTCF: an architectural protein bridging genome topology and function. **2014**, 15, 234-46 | 680 |
| 1789 | Interpreting the language of histone and DNA modifications. **2014**, 1839, 627-43 | 459 |
| 1788 | Systems biology in drug discovery and development. **2014**, 19, 113-25 | 62 |
| 1787 | A current view of the epigenome in mouse primordial germ cells. **2014**, 81, 160-70 | 22 |
| 1786 | Modulation of ten-eleven translocation 1 (TET1), Isocitrate Dehydrogenase (IDH) expression, α-Ketoglutarate (αKG), and DNA hydroxymethylation levels by interleukin-1β in primary human chondrocytes. **2014**, 289, 6877-6885 | 57 |
| 1785 | Tet and TDG mediate DNA demethylation essential for mesenchymal-to-epithelial transition in somatic cell reprogramming. **2014**, 14, 512-22 | 241 |
| 1784 | DNA methylation dynamics during epigenetic reprogramming in the germline and preimplantation embryos. **2014**, 28, 812-28 | 458 |
| 1783 | Loss of Tet enzymes compromises proper differentiation of embryonic stem cells. **2014**, 29, 102-11 | 224 |
| 1782 | The role of chromatin modifications in progression through mouse meiotic prophase. **2014**, 41, 97-106 | 30 |
| 1781 | Differential regulation of the ten-eleven translocation (TET) family of dioxygenases by O-linked β-N-acetylglucosamine transferase (OGT). **2014**, 289, 5986-96 | 94 |
| 1780 | DNA methylation in mammals. **2014**, 6, a019133 | 492 |
| 1779 | Epigenetics, plasticity, and evolution: How do we link epigenetic change to phenotype?. **2014**, 322, 208-20 | 142 |
| 1778 | Quantitative analysis of ribonucleoside modifications in tRNA by HPLC-coupled mass spectrometry. **2014**, 9, 828-41 | 136 |

1777 Tet oxidizes thymine to 5-hydroxymethyluracil in mouse embryonic stem cell DNA. **2014**, 10, 574-81 215

1776 Natural Polyphenols as Potent Inhibitors of DNA Methyltransferases. **2014**, 41, 195-223 5

1775 Programming and inheritance of parental DNA methylomes in mammals. **2014**, 157, 979-991 347

1774 Structural basis for hydroxymethylcytosine recognition by the SRA domain of UHRF2. **2014**, 54, 879-86 78

1773 Mechanisms of epigenetic memory and addiction. **2014**, 33, 1091-103 39

1772 Playing TETris with DNA modifications. **2014**, 33, 1198-211 96

1771 Mammalian epigenetic mechanisms. **2014**, 66, 240-56 80

1770 Establishment of methylation patterns in ES cells. **2014**, 21, 110-2 27

1769 Structure of a Naegleria Tet-like dioxygenase in complex with 5-methylcytosine DNA. **2014**, 506, 391-5 99

1768 Investigating 5-hydroxymethylcytosine (5hmC): the state of the art. **2014**, 1094, 243-58 14

1767 Epigenetic profiles as defined signatures of xenobiotic exposure. **2014**, 764-765, 3-9 49

1766 Defending the genome from the enemy within: mechanisms of retrotransposon suppression in the mouse germline. **2014**, 71, 1581-605 81

1765 Getting rid of DNA methylation. **2014**, 24, 136-43 58

1764 Functional Analysis of DNA and Chromatin. **2014**, 1

1763 Spatiotemporal expression of DNA demethylation enzymes and histone demethylases in bovine embryos. **2014**, 16, 40-53 20

1762 Evidence that active demethylation mechanisms maintain the genome of carcinoma in situ cells hypomethylated in the adult testis. **2014**, 110, 668-78 35

1761 PRDM14 promotes active DNA demethylation through the ten-eleven translocation (TET)-mediated base excision repair pathway in embryonic stem cells. **2014**, 141, 269-80 90

1760 Chromatin regulators of genomic imprinting. **2014**, 1839, 169-77 32

| | | |
|---|---|---|
| 1759 | Methamphetamine downregulates striatal glutamate receptors via diverse epigenetic mechanisms. **2014**, 76, 47-56 | 93 |
| 1758 | Comprehensive DNA methylation and hydroxymethylation analysis in the human brain and its implication in mental disorders. **2014**, 80, 133-9 | 67 |
| 1757 | 5-hydroxymethylcytosine-mediated DNA demethylation in stem cells and development. **2014**, 23, 923-30 | 20 |
| 1756 | Reversing DNA methylation: mechanisms, genomics, and biological functions. **2014**, 156, 45-68 | 738 |
| 1755 | The Ten-Eleven Translocation-2 (TET2) gene in hematopoiesis and hematopoietic diseases. **2014**, 28, 485-96 | 179 |
| 1754 | Single-base resolution analysis of active DNA demethylation using methylase-assisted bisulfite sequencing. **2014**, 32, 1231-40 | 107 |
| 1753 | Quantification of 5-methylcytosine, 5-hydroxymethylcytosine and 5-carboxylcytosine from the blood of cancer patients by an enzyme-based immunoassay. **2014**, 852, 212-7 | 45 |
| 1752 | DNA modifications: Another stable base in DNA. **2014**, 6, 1031-3 | 6 |
| 1751 | DNA methylation: old dog, new tricks?. **2014**, 21, 949-54 | 62 |
| 1750 | Compendium of aberrant DNA methylation and histone modifications in cancer. **2014**, 455, 3-9 | 43 |
| 1749 | Accelerated reaction simulations: A virtual squeeze on chemistry. **2014**, 6, 1033-4 | 4 |
| 1748 | Close encounters with DNA. **2014**, 26, 413101 | 39 |
| 1747 | Pyrene-Based Quantitative Detection of the 5-Formylcytosine Loci Symmetry in the CpG Duplex Content during TET-Dependent Demethylation. **2014**, 126, 11405-11409 | 4 |
| 1746 | Pyrene-based quantitative detection of the 5-formylcytosine loci symmetry in the CpG duplex content during TET-dependent demethylation. **2014**, 53, 11223-7 | 30 |
| 1745 | O-GlcNAc and the epigenetic regulation of gene expression. **2014**, 289, 34440-8 | 99 |
| 1744 | Fingerprinting DNA oxidation processes: IR characterization of the 5-methyl-2'-deoxycytidine radical cation. **2014**, 15, 420-3 | 6 |
| 1743 | Discovery of a bacterial 5-methylcytosine deaminase. **2014**, 53, 7426-35 | 8 |
| 1742 | Nanopores discriminate among five C5-cytosine variants in DNA. **2014**, 136, 16582-7 | 78 |

| | | |
|---|---|---|
| 1741 | Identification of DNA methylation changes at cis-regulatory elements during early steps of HSC differentiation using tagmentation-based whole genome bisulfite sequencing. **2014**, 13, 3476-87 | 31 |
| 1740 | Effects of Tet-induced oxidation products of 5-methylcytosine on Dnmt1- and DNMT3a-mediated cytosine methylation. **2014**, 10, 1749-52 | 42 |
| 1739 | Decoding neural transcriptomes and epigenomes via high-throughput sequencing. **2014**, 17, 1463-75 | 42 |
| 1738 | TET enzymes and DNA hydroxymethylation in neural development and function - how critical are they?. **2014**, 104, 334-40 | 66 |
| 1737 | Neocortical Tet3-mediated accumulation of 5-hydroxymethylcytosine promotes rapid behavioral adaptation. **2014**, 111, 7120-5 | 145 |
| 1736 | Genomic distribution and possible functions of DNA hydroxymethylation in the brain. **2014**, 104, 341-6 | 72 |
| 1735 | CGmCGCG is a versatile substrate with which to evaluate Tet protein activity. **2014**, 12, 104-7 | 17 |
| 1734 | Expression features of DNA methylcytosine dioxygenase ten-eleven translocation 1 in human dental pulp cells. **2014**, 40, 1791-5 | 9 |
| 1733 | 5-Methycytosine and 5-Hydroxymethylcytosine in Psychiatric Epigenetics. **2014**, 209-240 | 1 |
| 1732 | Effects of tet-induced oxidation products of 5-methylcytosine on DNA replication in mammalian cells. **2014**, 27, 1304-9 | 11 |
| 1731 | Epigenetics and the Maternal Germline. **2014**, 27-41 | 0 |
| 1730 | The carboxy-terminal domain of ROS1 is essential for 5-methylcytosine DNA glycosylase activity. **2014**, 426, 3703-3712 | 11 |
| 1729 | AFM analysis of changes in nucleosome wrapping induced by DNA epigenetic modification. **2014**, 2, 1399-1403 | 8 |
| 1728 | Chemical biology of genomic DNA: minimizing PCR bias. **2014**, 50, 12047-9 | 4 |
| 1727 | Repetitive elements and epigenetic marks in behavior and psychiatric disease. **2014**, 86, 185-252 | 7 |
| 1726 | MicroRNA-15b promotes neurogenesis and inhibits neural progenitor proliferation by directly repressing TET3 during early neocortical development. **2014**, 15, 1305-14 | 58 |
| 1725 | A new insight into the 5-carboxycytosine and 5-formylcytosine under typical bisulfite conditions: a deamination mechanism study. **2014**, 16, 3573-85 | 8 |
| 1724 | Epigenetics. **2014**, 57-69 | 1 |

| | | |
|---|---|---|
| 1723 | 5-Hydroxymethylcytosine is a predominantly stable DNA modification. **2014**, 6, 1049-55 | 337 |
| 1722 | Functional O-GlcNAc modifications: implications in molecular regulation and pathophysiology. **2014**, 49, 140-163 | 54 |
| 1721 | Dissecting the dynamic changes of 5-hydroxymethylcytosine in T-cell development and differentiation. **2014**, 111, E3306-15 | 110 |
| 1720 | Nucleic acid-based tissue biomarkers of urologic malignancies. **2014**, 51, 173-99 | 28 |
| 1719 | Now you see it: genome methylation makes a comeback in Drosophila. **2014**, 36, 1138-44 | 21 |
| 1718 | Multiplexed parallel reaction monitoring targeting histone modifications on the QExactive mass spectrometer. **2014**, 86, 5526-34 | 51 |
| 1717 | The impact of DNA methylation technologies on drug toxicology. **2014**, 10, 637-46 | 8 |
| 1716 | Redox-active quinones induces genome-wide DNA methylation changes by an iron-mediated and Tet-dependent mechanism. **2014**, 42, 1593-605 | 88 |
| 1715 | 5-Hydroxymethylcytosine: a stable or transient DNA modification?. **2014**, 104, 314-23 | 88 |
| 1714 | DNA demethylation, Tet proteins and 5-hydroxymethylcytosine in epigenetic reprogramming: an emerging complex story. **2014**, 104, 324-33 | 117 |
| 1713 | Advances in the profiling of DNA modifications: cytosine methylation and beyond. **2014**, 15, 647-61 | 183 |
| 1712 | Loss of 5-hydroxymethylcytosine in cancer: cause or consequence?. **2014**, 104, 352-7 | 82 |
| 1711 | Connections between TET proteins and aberrant DNA modification in cancer. **2014**, 30, 464-74 | 177 |
| 1710 | Epigenetic mechanisms of memory formation and reconsolidation. **2014**, 115, 116-27 | 70 |
| 1709 | DNA methylation in obesity and type 2 diabetes. **2014**, 46, 103-13 | 56 |
| 1708 | Active and passive demethylation of male and female pronuclear DNA in the mammalian zygote. **2014**, 15, 447-459 | 261 |
| 1707 | Epigenetic mechanisms in autism spectrum disorder. **2014**, 115, 203-44 | 34 |
| 1706 | Tet-mediated formation of 5-hydroxymethylcytosine in RNA. **2014**, 136, 11582-5 | 201 |

| | | |
|---|---|---|
| 1705 | 5mC oxidation by Tet2 modulates enhancer activity and timing of transcriptome reprogramming during differentiation. **2014**, 56, 286-297 | 226 |
| 1704 | 5-hydroxymethylcytosine represses the activity of enhancers in embryonic stem cells: a new epigenetic signature for gene regulation. **2014**, 15, 670 | 23 |
| 1703 | Epigenetic regulation of adult neural stem cells: implications for Alzheimer's disease. **2014**, 9, 25 | 46 |
| 1702 | DNA methylation dynamics during ex vivo differentiation and maturation of human dendritic cells. **2014**, 7, 21 | 65 |
| 1701 | Epigenetic regulation in cancer progression. **2014**, 4, 45 | 78 |
| 1700 | DNA modifications in the mammalian brain. **2014**, 369, | 24 |
| 1699 | Epigenetic drugs against cancer: an evolving landscape. **2014**, 88, 1651-68 | 37 |
| 1698 | Tet3 and DNA replication mediate demethylation of both the maternal and paternal genomes in mouse zygotes. **2014**, 15, 459-471 | 161 |
| 1697 | Clinical and biological impact of TET2 mutations and expression in younger adult AML patients treated within the EORTC/GIMEMA AML-12 clinical trial. **2014**, 93, 1401-12 | 22 |
| 1696 | The role of 5-hydroxymethylcytosine in human cancer. **2014**, 356, 631-41 | 62 |
| 1695 | Deamination features of 5-hydroxymethylcytosine, a radical and enzymatic DNA oxidation product. **2014**, 20, 2290 | 3 |
| 1694 | TET family proteins: new players in gliomas. **2014**, 116, 429-35 | 17 |
| 1693 | Mechanism and function of oxidative reversal of DNA and RNA methylation. **2014**, 83, 585-614 | 243 |
| 1692 | Recent advances in the analysis of 5-methylcytosine and its oxidation products. **2014**, 54, 24-35 | 41 |
| 1691 | 5-methylcytosine recognition by Arabidopsis thaliana DNA glycosylases DEMETER and DML3. **2014**, 53, 2525-32 | 11 |
| 1690 | TET2 deficiency inhibits mesoderm and hematopoietic differentiation in human embryonic stem cells. **2014**, 32, 2084-97 | 32 |
| 1689 | Epigenetic regulation of pluripotency and differentiation. **2014**, 115, 311-24 | 165 |
| 1688 | Dynamic RNA modifications in disease. **2014**, 26, 47-52 | 70 |

| | | |
|---|---|---|
| 1687 | Determination of oxidation products of 5-methylcytosine in plants by chemical derivatization coupled with liquid chromatography/tandem mass spectrometry analysis. **2014**, 86, 7764-72 | 75 |
| 1686 | Driver mutations of cancer epigenomes. **2014**, 5, 265-96 | 110 |
| 1685 | ngs.plot: Quick mining and visualization of next-generation sequencing data by integrating genomic databases. **2014**, 15, 284 | 561 |
| 1684 | Quantitative sequencing of 5-formylcytosine in DNA at single-base resolution. **2014**, 6, 435-40 | 183 |
| 1683 | E2-mediated small ubiquitin-like modifier (SUMO) modification of thymine DNA glycosylase is efficient but not selective for the enzyme-product complex. **2014**, 289, 15810-9 | 15 |
| 1682 | Boronic acid-mediated polymerase chain reaction for gene- and fragment-specific detection of 5-hydroxymethylcytosine. **2014**, 42, e81 | 19 |
| 1681 | Role of Tet proteins in enhancer activity and telomere elongation. **2014**, 28, 2103-19 | 176 |
| 1680 | From development to diseases: the role of 5hmC in brain. **2014**, 104, 347-51 | 63 |
| 1679 | New tumor suppressor CXXC finger protein 4 inactivates mitogen activated protein kinase signaling. **2014**, 588, 3322-6 | 12 |
| 1678 | Environmental enrichment modulates 5-hydroxymethylcytosine dynamics in hippocampus. **2014**, 104, 376-82 | 41 |
| 1677 | Oxidative demethylation of DNA and RNA mediated by non-heme iron-dependent dioxygenases. **2014**, 9, 2018-29 | 6 |
| 1676 | CXXC4 mRNA levels are associated with clinicopathological parameters and survival of myelodysplastic syndrome patients. **2014**, 38, 1072-8 | 3 |
| 1675 | Mechanisms for enzymatic cleavage of the N-glycosidic bond in DNA. **2014**, 12, 8367-78 | 49 |
| 1674 | Molecules and mechanisms controlling the active DNA demethylation of the mammalian zygotic genome. **2014**, 5, 827-36 | 2 |
| 1673 | Hydralazine-valproate: a repositioned drug combination for the epigenetic therapy of cancer. **2014**, 10, 1433-44 | 44 |
| 1672 | Cross-region reduction in 5-hydroxymethylcytosine in Alzheimer's disease brain. **2014**, 35, 1850-4 | 96 |
| 1671 | Decreased expression of ten-eleven translocation 1 protein is associated with some clinicopathological features in gastric cancer. **2014**, 68, 209-12 | 22 |
| 1670 | Carboxylation of cytosine (5caC) in the CG dinucleotide in the E-box motif (CGCAG\|GTG) increases binding of the Tcf3\|Ascl1 helix-loop-helix heterodimer 10-fold. **2014**, 449, 248-55 | 18 |

| | | |
|---|---|---|
| 1669 | Role of epigenetic aberrations in the development and progression of human hepatocellular carcinoma. **2014**, 342, 223-30 | 139 |
| 1668 | Neuronal differentiation: 5-HT6R can do it alone. **2014**, 10, 488-9 | 9 |
| 1667 | Direct decarboxylation of 5-carboxylcytosine by DNA C5-methyltransferases. **2014**, 136, 5884-7 | 48 |
| 1666 | Biochemie und Molekularbiologie 2013. **2014**, 62, 302-312 | |
| 1665 | Alterations in DNA Methylation Resulting from Exposure to Chemical Carcinogens. **2014**, | 3 |
| 1664 | A Chemical Probe Targets DNA 5-Formylcytosine Sites and Inhibits TDG Excision, Polymerases Bypass, and Gene Expression. **2014**, 5, 567-574 | 25 |
| 1663 | The NTP pyrophosphatase DCTPP1 contributes to the homoeostasis and cleansing of the dNTP pool in human cells. **2014**, 459, 171-80 | 30 |
| 1662 | Unlocking epigenetic codes in neurogenesis. **2014**, 28, 1253-71 | 67 |
| 1661 | Sleep fragmentation during late gestation induces metabolic perturbations and epigenetic changes in adiponectin gene expression in male adult offspring mice. **2014**, 63, 3230-41 | 34 |
| 1660 | Transient accumulation of 5-carboxylcytosine indicates involvement of active demethylation in lineage specification of neural stem cells. **2014**, 7, 1353-1361 | 70 |
| 1659 | Subcellular compartmentation of ascorbate and its variation in disease states. **2014**, 1843, 1909-16 | 53 |
| 1658 | DNA metabolism: bases of DNA repair and regulation. **2014**, 10, 487-8 | 4 |
| 1657 | Nucleic acid oxidation in DNA damage repair and epigenetics. **2014**, 114, 4602-20 | 63 |
| 1656 | Excision of 5-hydroxymethylcytosine by DEMETER family DNA glycosylases. **2014**, 446, 1067-72 | 26 |
| 1655 | Epigenetic biomarkers in prostate cancer: Current and future uses. **2014**, 342, 248-56 | 58 |
| 1654 | Characterizing DNA methylation alterations from The Cancer Genome Atlas. **2014**, 124, 17-23 | 128 |
| 1653 | Diversity of two forms of DNA methylation in the brain. **2014**, 5, 46 | 54 |
| 1652 | Distinct and overlapping control of 5-methylcytosine and 5-hydroxymethylcytosine by the TET proteins in human cancer cells. **2014**, 15, R81 | 72 |

| | | |
|---|---|---|
| 1651 | Synthese eines DNA-Promotorsegments mit allen vier epigenetischen Nukleosiden: 5-Methyl-, 5-Hydroxymethyl-, 5-Formyl- und 5-Carboxy-2?-Desoxycytidin. **2014**, 126, 321-324 | 8 |
| 1650 | Current technological advances in mapping new DNA modifications. **2014**, 12, 15-26 | |
| 1649 | Age-dependent levels of 5-methyl-, 5-hydroxymethyl-, and 5-formylcytosine in human and mouse brain tissues. **2015**, 54, 12511-4 | 93 |
| 1648 | Autism spectrum disorder model mice: Focus on copy number variation and epigenetics. **2015**, 58, 976-84 | 5 |
| 1647 | miR-370 and miR-373 regulate the pathogenesis of osteoarthritis by modulating one-carbon metabolism via SHMT-2 and MECP-2, respectively. **2015**, 14, 826-37 | 29 |
| 1646 | [Exploration of Epigenetic Changes and DNA Methylation Markers Associated with Liver Tumors Induced by Inorganic Arsenite Exposure in Mice]. **2015**, 70, 181-5 | |
| 1645 | Restored expression levels of TET1 decrease the proliferation and migration of renal carcinoma cells. **2015**, 12, 4837-42 | 16 |
| 1644 | TET-catalyzed 5-hydroxymethylcytosine regulates gene expression in differentiating colonocytes and colon cancer. **2015**, 5, 17568 | 39 |
| 1643 | Identification of CD34+ and CD34- leukemia-initiating cells in MLL-rearranged human acute lymphoblastic leukemia. **2015**, 125, 967-80 | 37 |
| 1642 | DAZL regulates Tet1 translation in murine embryonic stem cells. **2015**, 16, 791-802 | 19 |
| 1641 | Effects of Tet-mediated oxidation products of 5-methylcytosine on DNA transcription in vitro and in mammalian cells. **2014**, 4, 7052 | 13 |
| 1640 | Enhanced reduced representation bisulfite sequencing for assessment of DNA methylation at base pair resolution. **2015**, e52246 | 65 |
| 1639 | Structure of Naegleria Tet-like dioxygenase (NgTet1) in complexes with a reaction intermediate 5-hydroxymethylcytosine DNA. **2015**, 43, 10713-21 | 22 |
| 1638 | Molecular basis for the substrate specificity and catalytic mechanism of thymine-7-hydroxylase in fungi. **2015**, 43, 10026-38 | 5 |
| 1637 | The TET2 interactors and their links to hematological malignancies. **2015**, 67, 438-45 | 19 |
| 1636 | Dendritische Nanostrukturen zur rezeptorvermittelten Aufnahme von siRNA in neurale Zellen. **2015**, 127, 1968-1971 | 5 |
| 1635 | Aldolase B inhibits metastasis through Ten-Eleven Translocation 1 and serves as a prognostic biomarker in hepatocellular carcinoma. **2015**, 14, 170 | 51 |
| 1634 | High levels of 5-hydroxymethylcytosine (5hmC) is an adverse predictor of biochemical recurrence after prostatectomy in ERG-negative prostate cancer. **2015**, 7, 111 | 24 |

| | | |
|---|---|---|
| 1633 | Ultrasensitive Direct Quantification of Nucleobase Modifications in DNA by Surface-Enhanced Raman Scattering: The Case of Cytosine. **2015**, 54, 13650-4 | 50 |
| 1632 | Ultrasensitive Direct Quantification of Nucleobase Modifications in DNA by Surface-Enhanced Raman Scattering: The Case of Cytosine. **2015**, 127, 13854-13858 | 13 |
| 1631 | N6-methyladenine functions as a potential epigenetic mark in eukaryotes. **2015**, 37, 1155-62 | 31 |
| 1630 | Global DNA methylation and hydroxymethylation differ in hepatocellular carcinoma and cholangiocarcinoma and relate to survival rate. **2015**, 62, 496-504 | 48 |
| 1629 | Editorial from Guest Editor (DNA Methylation: A Target for Current and Future Therapies?). **2015**, 1, 3-4 | |
| 1628 | DNA Demethylation by TET Proteins: A Potential Therapeutic Target in Cancer. **2015**, 1, 49-59 | |
| 1627 | DNMT Inhibitors in Cancer, Current Treatments and Future Promising Approach: Inhibition of Specific DNMT-Including Complexes. **2015**, 1, 37-48 | 6 |
| 1626 | Functions of TET Proteins in Hematopoietic Transformation. **2015**, 38, 925-35 | 15 |
| 1625 | Role of mecp2 in experience-dependent epigenetic programming. **2015**, 6, 60-86 | 27 |
| 1624 | Epigenetic regulation in the inner ear and its potential roles in development, protection, and regeneration. **2014**, 8, 446 | 35 |
| 1623 | Dynamic DNA methylation in the brain: a new epigenetic mark for experience-dependent plasticity. **2015**, 9, 331 | 50 |
| 1622 | Accurate measurement of 5-methylcytosine and 5-hydroxymethylcytosine in human cerebellum DNA by oxidative bisulfite on an array (OxBS-array). **2015**, 10, e0118202 | 43 |
| 1621 | Genome wide DNA methylation profiles provide clues to the origin and pathogenesis of germ cell tumors. **2015**, 10, e0122146 | 50 |
| 1620 | A Cell Electrofusion Chip for Somatic Cells Reprogramming. **2015**, 10, e0131966 | 7 |
| 1619 | Retention of the Native Epigenome in Purified Mammalian Chromatin. **2015**, 10, e0133246 | 6 |
| 1618 | Mutational Hotspot of TET2, IDH1, IDH2, SRSF2, SF3B1, KRAS, and NRAS from Human Systemic Mastocytosis Are Not Conserved in Canine Mast Cell Tumors. **2015**, 10, e0142450 | 7 |
| 1617 | DNA Methylation: A Possible Target for Current and Future Studies on Cancer?. **2015**, 1, 5-13 | |
| 1616 | TET family proteins and 5-hydroxymethylcytosine in esophageal squamous cell carcinoma. **2015**, 6, 23372-82 | 40 |

| | | |
|---|---|---|
| 1615 | Biochemical characterization of a Naegleria TET-like oxygenase and its application in single molecule sequencing of 5-methylcytosine. **2015**, 112, 4316-21 | 43 |
| 1614 | Regulation of DNA methylation dictates Cd4 expression during the development of helper and cytotoxic T cell lineages. **2015**, 16, 746-54 | 60 |
| 1613 | Environmental Epigenetics. **2015**, | |
| 1612 | Perinatal programming of neurodevelopment: epigenetic mechanisms and the prenatal shaping of the brain. **2015**, 10, 335-61 | 22 |
| 1611 | Personalized Epigenetics. **2015**, 123-150 | |
| 1610 | Technologies for the Measurement and Mapping of Genomic 5-Methylcytosine and 5-Hydroxymethylcytosine. **2015**, 19-38 | |
| 1609 | DNA Methyltransferase Inhibitors for Cancer Therapy. **2015**, 265-290 | 10 |
| 1608 | High-Throughput Sequencing-Based Mapping of Cytosine Modifications. **2015**, 39-53 | 1 |
| 1607 | Role of base excision repair in maintaining the genetic and epigenetic integrity of CpG sites. **2015**, 32, 33-42 | 60 |
| 1606 | IDH1, a CHOP and C/EBP□esponsive gene under ER stress, sensitizes human melanoma cells to hypoxia-induced apoptosis. **2015**, 365, 201-10 | 40 |
| 1605 | Biochemical, Epigenetic, and Metabolic Approaches to Target IDH Mutations in Acute Myeloid Leukemia. **2015**, 52, 165-71 | 40 |
| 1604 | Molecular epigenetic switches in neurodevelopment in health and disease. **2015**, 9, 120 | 16 |
| 1603 | 5-hydroxymethylcytosine in cancer: significance in diagnosis and therapy. **2015**, 208, 167-77 | 59 |
| 1602 | Epigenetics. **2015**, 839-847 | 2 |
| 1601 | TET2 Mutations Affect Non-CpG Island DNA Methylation at Enhancers and Transcription Factor-Binding Sites in Chronic Myelomonocytic Leukemia. **2015**, 75, 2833-43 | 67 |
| 1600 | LINE-1 Retrotransposons and Their Role in Cancer. **2015**, 51-99 | 1 |
| 1599 | Loss of 5-hydroxymethylcytosine and intratumoral heterogeneity as an epigenomic hallmark of glioblastoma. **2015**, 36, 8439-46 | 21 |
| 1598 | Epigenetic Mechanisms of Psychostimulant-Induced Addiction. **2015**, 120, 85-105 | 19 |

1597 Environmental Contributors to Epigenetics and Cardiovascular Disease Risk. **2015**, 197-227

1596 Oxidative DNA demethylation mediated by Tet enzymes. **2015**, 2, 318-328 23

1595 Altersabhängige Level von 5-Methyl-, 5-Hydroxymethyl- und 5-Formylcytosin in Hirngeweben des Menschen und der Maus. **2015**, 127, 12691-12695 17

1594 Base-resolution detection of N4-methylcytosine in genomic DNA using 4mC-Tet-assisted-bisulfite-sequencing. **2015**, 43, e148 36

1593 Clustering of Cancer Cell Lines Using A Promoter- Targeted Liquid Hybridization Capture-Based Bisulfite Sequencing Approach. **2015**, 14, 383-94 6

1592 GADD45a physically and functionally interacts with TET1. **2015**, 90, 59-68 26

1591 Promoter demethylation of nuclear factor-erythroid 2-related factor 2 gene in drug-resistant colon cancer cells. **2015**, 10, 1287-1292 28

1590 TET Family of Dioxygenases: Crucial Roles and Underlying Mechanisms. **2015**, 146, 171-80 32

1589 CRL4(VprBP) E3 ligase promotes monoubiquitylation and chromatin binding of TET dioxygenases. **2015**, 57, 247-260 75

1588 Pharmacology of cognitive enhancers for exposure-based therapy of fear, anxiety and trauma-related disorders. **2015**, 149, 150-90 265

1587 Programming and inheritance of parental DNA methylomes in vertebrates. **2015**, 30, 63-8 11

1586 Role of diet in prostate cancer: the epigenetic link. **2015**, 34, 4683-91 41

1585 Neuroepigenomics: Resources, Obstacles, and Opportunities. **2015**, 1, 2-13 14

1584 Establishing and Maintaining Pluripotency: An Epigenetic Perspective. **2015**, 101-120

1583 Single-Base Resolution Analysis of 5-Formyl and 5-Carboxyl Cytosine Reveals Promoter DNA Methylation Dynamics. **2015**, 10, 674-683 91

1582 Base-resolution maps of 5-formylcytosine and 5-carboxylcytosine reveal genome-wide DNA demethylation dynamics. **2015**, 25, 386-9 64

1581 Differential stabilities and sequence-dependent base pair opening dynamics of Watson-Crick base pairs with 5-hydroxymethylcytosine, 5-formylcytosine, or 5-carboxylcytosine. **2015**, 54, 1294-305 52

1580 TET family proteins: oxidation activity, interacting molecules, and functions in diseases. **2015**, 115, 2225-39 75

| | | |
|---|---|---|
| 1579 | Programmable sensors of 5-hydroxymethylcytosine. **2015**, 137, 2-5 | 37 |
| 1578 | Evaluation of wild yam (Dioscorea villosa) root extract as a potential epigenetic agent in breast cancer cells. **2015**, 51, 59-71 | 7 |
| 1577 | Analysis of nanopore data using hidden Markov models. **2015**, 31, 1897-903 | 21 |
| 1576 | Understanding the complexity of antigen retrieval of DNA methylation for immunofluorescence-based measurement and an approach to challenge. **2015**, 416, 1-16 | 5 |
| 1575 | The extended version of restriction analysis approach for the examination of the ability of low-molecular-weight compounds to modify DNA in a cell-free system. **2015**, 75, 118-27 | 5 |
| 1574 | The Tet1 and histone methylation expression pattern in dairy goat testis. **2015**, 83, 1154-61 | 9 |
| 1573 | 5-Hydroxymethylcytosine: An epigenetic mark frequently deregulated in cancer. **2015**, 1855, 144-54 | 57 |
| 1572 | Multistep tumorigenesis in peripheral T cell lymphoma. **2015**, 102, 523-7 | 23 |
| 1571 | Epigenetic processes in the male germline. **2015**, 27, 725-38 | 22 |
| 1570 | Sensitive and simultaneous determination of 5-methylcytosine and its oxidation products in genomic DNA by chemical derivatization coupled with liquid chromatography-tandem mass spectrometry analysis. **2015**, 87, 3445-52 | 102 |
| 1569 | Detection of human urinary 5-hydroxymethylcytosine by stable isotope dilution HPLC-MS/MS analysis. **2015**, 87, 1846-52 | 88 |
| 1568 | Fast and convenient 5-hydroxymethylcytosine enrichment workflow for next-generation sequencing. **2015**, 12, i-iii | |
| 1567 | New insights into mechanisms that regulate DNA methylation patterning. **2015**, 218, 14-20 | 36 |
| 1566 | WT1 recruits TET2 to regulate its target gene expression and suppress leukemia cell proliferation. **2015**, 57, 662-673 | 198 |
| 1565 | 5-hydroxymethylcytosine is not present in appreciable quantities in Arabidopsis DNA. **2014**, 5, 1-8 | 28 |
| 1564 | A sensitive approach to map genome-wide 5-hydroxymethylcytosine and 5-formylcytosine at single-base resolution. **2015**, 57, 750-761 | 65 |
| 1563 | Epigenetic studies of suicidal behavior. **2015**, 21, 134-43 | 17 |
| 1562 | Stella and Zygotic Reprogramming. **2015**, 31-42 | |

| | | |
|---|---|---|
| 1561 | Dynamic switching of active promoter and enhancer domains regulates Tet1 and Tet2 expression during cell state transitions between pluripotency and differentiation. **2015**, 35, 1026-42 | 33 |
| 1560 | Function and information content of DNA methylation. **2015**, 517, 321-6 | 1207 |
| 1559 | Beyond receptors and signaling: epigenetic factors in the regulation of innate immunity. **2015**, 93, 233-44 | 43 |
| 1558 | Clinical significance of DNA methylation mRNA levels of TET family members in colorectal cancer. **2015**, 141, 1379-92 | 31 |
| 1557 | Epigenetics, embryo quality and developmental potential. **2014**, 27, 53-62 | 24 |
| 1556 | Reconfiguration of DNA methylation in aging. **2015**, 151, 60-70 | 176 |
| 1555 | Malignant Transformation and Epigenetics. **2015**, 113-135 | |
| 1554 | Formation and abundance of 5-hydroxymethylcytosine in RNA. **2015**, 16, 752-5 | 109 |
| 1553 | 5-Hydroxymethylcytosine and 5-formylcytosine containing deoxyoligonucleotides: facile syntheses and melting temperature studies. **2015**, 25, 1186-91 | 8 |
| 1552 | Rapid reprogramming of epigenetic and transcriptional profiles in mammalian culture systems. **2015**, 16, 11 | 108 |
| 1551 | Phosphorylation of TET proteins is regulated via O-GlcNAcylation by the O-linked N-acetylglucosamine transferase (OGT). **2015**, 290, 4801-4812 | 76 |
| 1550 | Chromatin methylation and cardiovascular aging. **2015**, 83, 21-31 | 16 |
| 1549 | Characterization of Hydroxymethylation Patterns in the Promoter of □globin Clusters in Murine Fetal Livers. **2015**, | |
| 1548 | Multi-layered global gene regulation in mouse embryonic stem cells. **2015**, 72, 199-216 | 5 |
| 1547 | M□thylation/d□m□thylation de l□ADN et expression du g□nome. **2015**, 2015, 37-48 | 0 |
| 1546 | Methylation analysis of the DAPK1 gene in imatinib-resistant chronic myeloid leukemia patients. **2015**, 9, 399-404 | 14 |
| 1545 | The epigenetics of aging and neurodegeneration. **2015**, 131, 21-64 | 247 |
| 1544 | Gadd45a promotes DNA demethylation through TDG. **2015**, 43, 3986-97 | 55 |

| | | |
|---|---|---|
| 1543 | Development of techniques for DNA-methylation analysis. **2015**, 72, 114-122 | 16 |
| 1542 | Mass spectrometry for the assessment of the occurrence and biological consequences of DNA adducts. **2015**, 44, 7829-54 | 85 |
| 1541 | DNA Methylation and Hydroxymethylation in Cancer. **2015**, 9-30 | 2 |
| 1540 | Writers, Readers, and Erasers of Epigenetic Marks. **2015**, 31-66 | 7 |
| 1539 | RNA N6-methyladenosine methylation in post-transcriptional gene expression regulation. **2015**, 29, 1343-55 | 514 |
| 1538 | Detection of 5-methylcytosine and 5-hydroxymethylcytosine in DNA host-guest interactions inside -hemolysin nanopores. **2015**, 6, 5628-5634 | 40 |
| 1537 | Local chromatin microenvironment determines DNMT activity: from DNA methyltransferase to DNA demethylase or DNA dehydroxymethylase. **2015**, 10, 671-6 | 56 |
| 1536 | Aberrant TET1 Methylation Closely Associated with CpG Island Methylator Phenotype in Colorectal Cancer. **2015**, 8, 702-11 | 40 |
| 1535 | Cytosine modifications in the honey bee (Apis mellifera) worker genome. **2015**, 6, 8 | 15 |
| 1534 | Simultaneous deletion of the methylcytosine oxidases Tet1 and Tet3 increases transcriptome variability in early embryogenesis. **2015**, 112, E4236-45 | 62 |
| 1533 | CDA directs metabolism of epigenetic nucleosides revealing a therapeutic window in cancer. **2015**, 524, 114-8 | 58 |
| 1532 | Altering TET dioxygenase levels within physiological range affects DNA methylation dynamics of HEK293 cells. **2015**, 10, 819-33 | 16 |
| 1531 | 5-Formylcytosine can be a stable DNA modification in mammals. **2015**, 11, 555-7 | 185 |
| 1530 | Cell Fate by SIRT6 and TETs. **2015**, 14, 2187-8 | 6 |
| 1529 | Regulation of the transcriptional program by DNA methylation during human -cell development. **2015**, 43, 760-74 | 36 |
| 1528 | Systems Biology and the Epigenome. **2015**, 43-56 | |
| 1527 | Molecular basis for 5-carboxycytosine recognition by RNA polymerase II elongation complex. **2015**, 523, 621-5 | 118 |
| 1526 | Reprogramming of cell fate: epigenetic memory and the erasure of memories past. **2015**, 34, 1296-308 | 101 |

| | | |
|---|---|---|
| 1525 | An Adenine Code for DNA: A Second Life for N6-Methyladenine. **2015**, 161, 710-3 | 117 |
| 1524 | Oxidized form of 5-methylcytosine—5-hydroxymethylcytosine: a new insight into the biological significance in the mammalian genome. **2015**, 5, 75-81 | 6 |
| 1523 | Tet3 regulates synaptic transmission and homeostatic plasticity via DNA oxidation and repair. **2015**, 18, 836-43 | 122 |
| 1522 | Deciphering Epigenetic Cytosine Modifications by Direct Molecular Recognition. **2015**, 10, 1580-9 | 16 |
| 1521 | CHAPTER 1:Biochemical Diversity of 2-Oxoglutarate-Dependent Oxygenases. **2015**, 1-58 | 22 |
| 1520 | Dynamics of DNA hydroxymethylation in zebrafish. **2015**, 12, 230-7 | 22 |
| 1519 | The histone deacetylase SIRT6 controls embryonic stem cell fate via TET-mediated production of 5-hydroxymethylcytosine. **2015**, 17, 545-57 | 111 |
| 1518 | N6-methyladenine DNA modification in Drosophila. **2015**, 161, 893-906 | 401 |
| 1517 | TET1 is a tumor suppressor of hematopoietic malignancy. **2015**, 16, 653-62 | 139 |
| 1516 | Function of TET proteins in germ cell reprogramming. **2015**, 37, 223-229 | 1 |
| 1515 | Cellular reprogramming and its application in regenerative medicine. **2015**, 12, 80-89 | 11 |
| 1514 | Genome-wide assays that identify and quantify modified cytosines in human disease studies. **2015**, 8, 5 | 29 |
| 1513 | 5-hydroxymethylcytosine marks promoters in colon that resist DNA hypermethylation in cancer. **2015**, 16, 69 | 49 |
| 1512 | TET proteins and the control of cytosine demethylation in cancer. **2015**, 7, 9 | 130 |
| 1511 | Hydroxymethylation and its potential implication in DNA repair system: A review and future perspectives. **2015**, 564, 109-18 | 39 |
| 1510 | Cytosine modifications in myeloid malignancies. **2015**, 152, 42-53 | 11 |
| 1509 | DNA methylation, its mediators and genome integrity. **2015**, 11, 604-17 | 97 |
| 1508 | Regulation of the Epigenome by Vitamin C. **2015**, 35, 545-64 | 187 |

| | | |
|---|---|---|
| 1507 | The hypomethylating agent Decitabine causes a paradoxical increase in 5-hydroxymethylcytosine in human leukemia cells. **2015**, 5, 9281 | 24 |
| 1506 | The effect of a methyl-deficient diet on the global DNA methylation and the DNA methylation regulatory pathways. **2015**, 35, 1550-6 | 25 |
| 1505 | DNA methylation and hydroxymethylation in stem cells. **2015**, 33, 161-73 | 36 |
| 1504 | Role of Tet1 and 5-hydroxymethylcytosine in cocaine action. **2015**, 18, 536-44 | 130 |
| 1503 | A strategy based on nucleotide specificity leads to a subfamily-selective and cell-active inhibitor of -methyladenosine demethylase FTO. **2015**, 6, 112-122 | 62 |
| 1502 | Epigenetic modifiers in normal and malignant hematopoiesis. **2015**, 7, 301-20 | 22 |
| 1501 | DNA Methylation Reprogramming in Preimplantation Development. **2015**, 69-99 | |
| 1500 | Epigenetic modifications in DNA could mimic oxidative DNA damage: A double-edged sword. **2015**, 32, 52-57 | 18 |
| 1499 | Establishing pluripotency in early development. **2015**, 1849, 626-36 | 33 |
| 1498 | MicroRNAs and DNA methylation as epigenetic regulators of mitosis, meiosis and spermiogenesis. **2015**, 150, R25-34 | 49 |
| 1497 | The alternative role of DNA methylation in splicing regulation. **2015**, 31, 274-80 | 315 |
| 1496 | Nucleic Acids. **2015**, 1-37 | |
| 1495 | Intrinsic regulations in neural fate commitment. **2015**, 57, 109-20 | 19 |
| 1494 | Genomics and Epigenomics of Prostate Cancer. **2015**, 149-170 | |
| 1493 | The interaction of mycobacterial protein Rv2966c with host chromatin is mediated through non-CpG methylation and histone H3/H4 binding. **2015**, 43, 3922-37 | 64 |
| 1492 | Chromosomal meiotic segregation, embryonic developmental kinetics and DNA (hydroxy)methylation analysis consolidate the safety of human oocyte vitrification. **2015**, 21, 535-44 | 35 |
| 1491 | Epigenetics: major regulators of embryonic neurogenesis. **2015**, 60, 1734-1743 | 4 |
| 1490 | Moving Toward the Ground State. **2015**, 17, 375-6 | 4 |

| | | |
|---|---|---|
| 1489 | The effect of DNA damage on the pattern of immune-detectable DNA methylation in mouse embryonic fibroblasts. **2015**, 339, 20-34 | 7 |
| 1488 | Differential regulation of genomic imprinting by TET proteins in embryonic stem cells. **2015**, 15, 435-43 | 13 |
| 1487 | New roles for DNA cytosine modification, eRNA, anchors, and superanchors in developing B cell progenitors. **2015**, 112, 12776-81 | 39 |
| 1486 | RNA polymerase II transcriptional fidelity control and its functional interplay with DNA modifications. **2015**, 50, 503-19 | 21 |
| 1485 | Epigenetics in the Vascular Endothelium: Looking From a Different Perspective in the Epigenomics Era. **2015**, 35, 2297-306 | 40 |
| 1484 | Arsenite Targets the Zinc Finger Domains of Tet Proteins and Inhibits Tet-Mediated Oxidation of 5-Methylcytosine. **2015**, 49, 11923-31 | 40 |
| 1483 | Thymine DNA glycosylase exhibits negligible affinity for nucleobases that it removes from DNA. **2015**, 43, 9541-52 | 22 |
| 1482 | PRDM14 maintains pluripotency of embryonic stem cells through TET-mediated active DNA demethylation. **2015**, 466, 138-45 | 14 |
| 1481 | Single-Cell Quantification of Cytosine Modifications by Hyperspectral Dark-Field Imaging. **2015**, 9, 11924-32 | 41 |
| 1480 | TET1 is controlled by pluripotency-associated factors in ESCs and downmodulated by PRC2 in differentiated cells and tissues. **2015**, 43, 6814-26 | 29 |
| 1479 | Structural insight into substrate preference for TET-mediated oxidation. **2015**, 527, 118-22 | 159 |
| 1478 | Targeted next-generation sequencing reveals high frequency of mutations in epigenetic regulators across treatment-naïve patient melanomas. **2015**, 7, 59 | 42 |
| 1477 | Oncogenic Myc Induces Expression of Glutamine Synthetase through Promoter Demethylation. **2015**, 22, 1068-77 | 121 |
| 1476 | Cell MicroRNAs: Small but Powerful. **2015**, 64, 3631-44 | 85 |
| 1475 | Alteration in 5-hydroxymethylcytosine-mediated epigenetic regulation leads to Purkinje cell vulnerability in ATM deficiency. **2015**, 138, 3520-36 | 50 |
| 1474 | Computations Reveal a Rich Mechanistic Variation of Demethylation of N-Methylated DNA/RNA Nucleotides by FTO. **2015**, 5, 7077-7090 | 40 |
| 1473 | Guanine- 5-carboxylcytosine base pairs mimic mismatches during DNA replication. **2014**, 4, 5220 | 21 |
| 1472 | Epigenetic regulatory functions of DNA modifications: 5-methylcytosine and beyond. **2015**, 8, 24 | 165 |

| | | |
|---|---|---|
| 1471 | Induction of active demethylation and 5hmC formation by 5-azacytidine is TET2 dependent and suggests new treatment strategies against hepatocellular carcinoma. **2015**, 7, 98 | 45 |
| 1470 | Mechanistic aspects of nucleic-acid oxidation studied with electrochemistry-mass spectrometry. **2015**, 70, 100-111 | 5 |
| 1469 | Minimal role of base excision repair in TET-induced global DNA demethylation in HEK293T cells. **2015**, 10, 1006-13 | 18 |
| 1468 | Epigenetic modulation of DNA methylation by nutrition and its mechanisms in animals. **2015**, 1, 144-151 | 72 |
| 1467 | Epigenetic Control of Smooth Muscle Cell Identity and Lineage Memory. **2015**, 35, 2508-16 | 65 |
| 1466 | A novel method to analyze 5-hydroxymethylcytosine in CpG sequences using maintenance DNA methyltransferase, DNMT1. **2015**, 5, 741-7 | 6 |
| 1465 | Reduction of global 5-hydroxymethylcytosine is a poor prognostic factor in breast cancer patients, especially for an ER/PR-negative subtype. **2015**, 153, 219-34 | 32 |
| 1464 | The Mechanisms of Generation, Recognition, and Erasure of DNA 5-Methylcytosine and Thymine Oxidations. **2015**, 290, 20723-20733 | 31 |
| 1463 | Hypoxia Drives Breast Tumor Malignancy through a TET-TNF□p38-MAPK Signaling Axis. **2015**, 75, 3912-24 | 80 |
| 1462 | Developmental windows of susceptibility for epigenetic inheritance through the male germline. **2015**, 43, 96-105 | 59 |
| 1461 | 5-Carboxylcytosine levels are elevated in human breast cancers and gliomas. **2015**, 7, 88 | 25 |
| 1460 | The potential of DNA modifications as biomarkers and therapeutic targets in oncology. **2015**, 15, 1325-37 | 19 |
| 1459 | Water-bridged hydrogen bond formation between 5-hydroxylmethylcytosine (5-hmC) and its 3'-neighbouring bases in A- and B-form DNA duplexes. **2015**, 51, 16389-92 | 2 |
| 1458 | Epigenetic modifications in mouse cerebellar Purkinje cells: effects of aging, caloric restriction, and overexpression of superoxide dismutase 1 on 5-methylcytosine and 5-hydroxymethylcytosine. **2015**, 36, 3079-3089 | 21 |
| 1457 | Bisulfite-free, base-resolution analysis of 5-formylcytosine at the genome scale. **2015**, 12, 1047-50 | 106 |
| 1456 | DNA hydroxymethylation age of human blood determined by capillary hydrophilic-interaction liquid chromatography/mass spectrometry. **2015**, 7, 72 | 26 |
| 1455 | Charting oxidized methylcytosines at base resolution. **2015**, 22, 656-61 | 47 |
| 1454 | Metabolism and epigenetics. **2015**, 31, 473-496 | 109 |

| | | |
|---|---|---|
| 1453 | RNA Pol II as a sensor of 5caC. **2015**, 25, 1089-90 | 3 |
| 1452 | TET proteins in cancer: Current 'state of the art'. **2015**, 96, 425-36 | 21 |
| 1451 | Structure, regulation, and function of TET family proteins. **2015**, 379-395 | 1 |
| 1450 | Acute loss of TET function results in aggressive myeloid cancer in mice. **2015**, 6, 10071 | 102 |
| 1449 | Selective oxidation of 5-hydroxymethylcytosine with micelle incarcerated oxidants to determine it at single base resolution. **2015**, 25, 5667-71 | 3 |
| 1448 | Importance of investigating epigenetic alterations for industry and regulators: An appraisal of current efforts by the Health and Environmental Sciences Institute. **2015**, 335, 11-9 | 23 |
| 1447 | Combined Loss of Tet1 and Tet2 Promotes B Cell, but Not Myeloid Malignancies, in Mice. **2015**, 13, 1692-704 | 65 |
| 1446 | DNA methylation and hydroxymethylation in hematologic differentiation and transformation. **2015** , 37, 91-101 | 50 |
| 1445 | Epigenetic Reprogramming in Cancer. **2015**, 193-223 | 2 |
| 1444 | Advancing small-molecule-based chemical biology with next-generation sequencing technologies. **2015**, 16, 20-38 | 23 |
| 1443 | Oxidized low-density lipoprotein inhibits THP-1-derived macrophage autophagy via TET2 down-regulation. **2015**, 50, 177-83 | 21 |
| 1442 | Perinatal Programming of Neurodevelopment. **2015**, | 2 |
| 1441 | Epigenetic Mechanisms in Cellular Reprogramming. **2015**, | 2 |
| 1440 | The Biology and Genomic Localization of Cytosine Modifications. **2015**, 167-191 | 1 |
| 1439 | 5-Formylcytosine alters the structure of the DNA double helix. **2015**, 22, 44-49 | 121 |
| 1438 | TET proteins and 5-methylcytosine oxidation in hematological cancers. **2015**, 263, 6-21 | 134 |
| 1437 | DNA-methyltransferase1 (DNMT1) binding to CpG rich GABAergic and BDNF promoters is increased in the brain of schizophrenia and bipolar disorder patients. **2015**, 167, 35-41 | 61 |
| 1436 | Sequencing the cancer methylome. **2015**, 1238, 627-51 | 11 |

| | | |
|---|---|---|
| 1435 | Cell-penetrating and neurotargeting dendritic siRNA nanostructures. **2015**, 54, 1946-9 | 35 |
| 1434 | New themes in the biological functions of 5-methylcytosine and 5-hydroxymethylcytosine. **2015**, 263, 36-49 | 34 |
| 1433 | Epigenetic programming of hypoxic-ischemic encephalopathy in response to fetal hypoxia. **2015**, 124, 28-48 | 33 |
| 1432 | Epigenetic control of myeloid cell differentiation, identity and function. **2015**, 15, 7-17 | 228 |
| 1431 | 5-Hydroxymethylcytosine, the "Sixth Base", during brain development and ageing. **2015**, 122, 1035-43 | 19 |
| 1430 | Trace analysis of methylated and hydroxymethylated cytosines in DNA by isotope-dilution LC-MS/MS: first evidence of DNA methylation in Caenorhabditis elegans. **2015**, 465, 39-47 | 18 |
| 1429 | Detection of mismatched 5-hydroxymethyluracil in DNA by selective chemical labeling. **2015**, 72, 16-20 | 11 |
| 1428 | DNA methylation and its implications and accessibility for neuropsychiatric therapeutics. **2015**, 55, 591-611 | 57 |
| 1427 | Epigenetics and its role in periodontal diseases: a state-of-the-art review. **2015**, 86, 556-68 | 72 |
| 1426 | A comprehensive view of the epigenetic landscape part I: DNA methylation, passive and active DNA demethylation pathways and histone variants. **2015**, 27, 84-97 | 55 |
| 1425 | 5-Hydroxymethylcytosine: A new player in brain disorders?. **2015**, 268, 3-9 | 54 |
| 1424 | O-GlcNAc signaling in cancer metabolism and epigenetics. **2015**, 356, 244-50 | 95 |
| 1423 | Epigenetics, a key for unlocking complex CNS disorders? Therapeutic implications. **2015**, 25, 682-702 | 39 |
| 1422 | RNA epigenetics. **2015**, 165, 28-35 | 86 |
| 1421 | Critical role of Tet3 in neural progenitor cell maintenance and terminal differentiation. **2015**, 51, 142-54 | 52 |
| 1420 | Epigenetic regulation of persistent pain. **2015**, 165, 177-99 | 53 |
| 1419 | Epigenetics and cancer metabolism. **2015**, 356, 309-14 | 73 |
| 1418 | Reprogramming the genome to totipotency in mouse embryos. **2015**, 25, 82-91 | 73 |

| | | |
|---|---|---|
| 1417 | TET1 is a tumour suppressor that inhibits colon cancer growth by derepressing inhibitors of the WNT pathway. **2015**, 34, 4168-76 | 130 |
| 1416 | Exogenous thymine DNA glycosylase regulates epigenetic modifications and meiotic cell cycle progression of mouse oocytes. **2015**, 21, 186-94 | 4 |
| 1415 | Single molecule and single cell epigenomics. **2015**, 72, 41-50 | 34 |
| 1414 | Molecular pathogenesis of atypical CML, CMML and MDS/MPN-unclassifiable. **2015**, 101, 229-42 | 49 |
| 1413 | Chemical methods for decoding cytosine modifications in DNA. **2015**, 115, 2240-54 | 87 |
| 1412 | Determinants of valid measurements of global changes in 5'-methylcytosine and 5'-hydroxymethylcytosine by immunolocalisation in the early embryo. **2015**, 27, 755-64 | 10 |
| 1411 | . **2016**, | 6 |
| 1410 | CRISPR-dCas9 mediated TET1 targeting for selective DNA demethylation at BRCA1 promoter. **2016**, 7, 46545-46556 | 194 |
| 1409 | Downregulation of ALDOB is associated with poor prognosis of patients with gastric cancer. **2016**, 9, 6099-6109 | 51 |
| 1408 | Immune System Disorders and Epigenetics. **2016**, 199-219 | 2 |
| 1407 | Effects of Laser Printer-Emitted Engineered Nanoparticles on Cytotoxicity, Chemokine Expression, Reactive Oxygen Species, DNA Methylation, and DNA Damage: A Comprehensive in Vitro Analysis in Human Small Airway Epithelial Cells, Macrophages, and Lymphoblasts. **2016**, 124, 210-9 | 54 |
| 1406 | Stem Cell Epigenetics in Medical Therapy. **2016**, 877-887 | |
| 1405 | DNA Methylation: Basic Principles. **2016**, 11-31 | 1 |
| 1404 | Associations between Blood and Urine Arsenic Concentrations and Global Levels of Post-Translational Histone Modifications in Bangladeshi Men and Women. **2016**, 124, 1234-40 | 25 |
| 1403 | Detection of Modified Forms of Cytosine Using Sensitive Immunohistochemistry. **2016**, | 8 |
| 1402 | Computational Analysis and Integration of MeDIP-seq Methylome Data. **2016**, | 1 |
| 1401 | Compartmentation of metabolites in regulating epigenome of cancer. **2016**, 22, 349-360 | 14 |
| 1400 | Physiological and pathological implications of 5-hydroxymethylcytosine in diseases. **2016**, 7, 48813-48831 | 10 |

| | | |
|---|---|---|
| 1399 | Multiple Functions of Ten-eleven Translocation 1 during Tumorigenesis. **2016**, 129, 1744-51 | 13 |
| 1398 | Epigenetic Control of Macrophage Polarisation and Soluble Mediator Gene Expression during Inflammation. **2016**, 2016, 6591703 | 57 |
| 1397 | Where Environment Meets Cognition: A Focus on Two Developmental Intellectual Disability Disorders. **2016**, 2016, 4235898 | 9 |
| 1396 | Genome-Wide DNA Methylation in Mixed Ancestry Individuals with Diabetes and Prediabetes from South Africa. **2016**, 2016, 3172093 | 9 |
| 1395 | Toxicology and Epigenetics. **2016**, 555-583 | |
| 1394 | Modulation of Epigenetics by Environmental Toxic Molecules. **2016**, 10, 361-389 | 0 |
| 1393 | Modifiers and Readers of DNA Modifications and Their Impact on Genome Structure, Expression, and Stability in Disease. **2016**, 7, 115 | 33 |
| 1392 | Global and Site-Specific Changes in 5-Methylcytosine and 5-Hydroxymethylcytosine after Extended Post-mortem Interval. **2016**, 7, 120 | 4 |
| 1391 | Environmental Enrichment Modified Epigenetic Mechanisms in SAMP8 Mouse Hippocampus by Reducing Oxidative Stress and Inflammaging and Achieving Neuroprotection. **2016**, 8, 241 | 44 |
| 1390 | DNMT3A and TET2 in the Pre-Leukemic Phase of Hematopoietic Disorders. **2016**, 6, 187 | 29 |
| 1389 | Role of Non-Coding RNAs in the Transgenerational Epigenetic Transmission of the Effects of Reprotoxicants. **2016**, 17, 452 | 28 |
| 1388 | Hypoxia, Epithelial-Mesenchymal Transition, and TET-Mediated Epigenetic Changes. **2016**, 5, | 35 |
| 1387 | In vivo genome-wide profiling reveals a tissue-specific role for 5-formylcytosine. **2016**, 17, 141 | 52 |
| 1386 | Regulation of CpG methylation by Dnmt and Tet in pluripotent stem cells. **2016**, 62, 331-5 | 11 |
| 1385 | The Influence of Hydroxylation on Maintaining CpG Methylation Patterns: A Hidden Markov Model Approach. **2016**, 12, e1004905 | 16 |
| 1384 | Histone H3 Variant Regulates RNA Polymerase II Transcription Termination and Dual Strand Transcription of siRNA Loci in Trypanosoma brucei. **2016**, 12, e1005758 | 32 |
| 1383 | Global 5-Hydroxymethylcytosine Levels Are Profoundly Reduced in Multiple Genitourinary Malignancies. **2016**, 11, e0146302 | 24 |
| 1382 | Cell-Wide DNA De-Methylation and Re-Methylation of Purkinje Neurons in the Developing Cerebellum. **2016**, 11, e0162063 | 7 |

| | | |
|---|---|---|
| 1381 | 5'-Hydroxymethylcytosine Precedes Loss of CpG Methylation in Enhancers and Genes Undergoing Activation in Cardiomyocyte Maturation. **2016**, 11, e0166575 | 13 |
| 1380 | DNA Methylation in Neurodegenerative Diseases. **2016**, 401-415 | 4 |
| 1379 | IDH1/2 Mutants Inhibit TET-Promoted Oxidation of RNA 5mC to 5hmC. **2016**, 11, e0161261 | 14 |
| 1378 | Age-associated hydroxymethylation in human bone-marrow mesenchymal stem cells. **2016**, 14, 207 | 28 |
| 1377 | The Methylcytosine Dioxygenase Ten-Eleven Translocase-2 (tet2) Enables Elevated GnRH Gene Expression and Maintenance of Male Reproductive Function. **2016**, 157, 3588-603 | 30 |
| 1376 | TALEored Epigenetics: A DNA-Binding Scaffold for Programmable Epigenome Editing and Analysis. **2016**, 17, 975-80 | 7 |
| 1375 | Novel therapeutic strategies in myelodysplastic syndromes: do molecular genetics help?. **2016**, 23, 79-87 | 2 |
| 1374 | Similar kinetics for 5-methylcytosine and 5-hydroxymethylcytosine during human preimplantation development in vitro. **2016**, 83, 594-605 | 11 |
| 1373 | Fluorescence turn-on chemical sensor based on water-soluble conjugated polymer/single-walled carbon nanotube composite. **2016**, 133, n/a-n/a | 3 |
| 1372 | Advances and challenges in understanding histone demethylase biology. **2016**, 33, 151-9 | 18 |
| 1371 | TET1 knockdown inhibits the odontogenic differentiation potential of human dental pulp cells. **2016**, 8, 110-6 | 19 |
| 1370 | DNA methylation in fibrosis. **2016**, 95, 323-30 | 20 |
| 1369 | Regulation of the DNA Methylation Landscape in Human Somatic Cell Reprogramming by the miR-29 Family. **2016**, 7, 43-54 | 27 |
| 1368 | Effects of cytosine modifications on DNA flexibility and nucleosome mechanical stability. **2016**, 7, 10813 | 126 |
| 1367 | Tet proteins influence the balance between neuroectodermal and mesodermal fate choice by inhibiting Wnt signaling. **2016**, 113, E8267-E8276 | 58 |
| 1366 | 2'-(R)-Fluorinated mC, hmC, fC and caC triphosphates are substrates for DNA polymerases and TET-enzymes. **2016**, 52, 14361-14364 | 12 |
| 1365 | Effect of cytostatic proline rich polypeptide-1 on tumor suppressors of inflammation pathway signaling in chondrosarcoma. **2016**, 5, 618-624 | 8 |
| 1364 | DNA Methylation in Heart Failure. **2016**, 75-102 | |

| | | |
|---|---|---|
| 1363 | ERK/c-Jun Recruits Tet1 to Induce Zta Expression and Epstein-Barr Virus Reactivation through DNA Demethylation. **2016**, 6, 34543 | 4 |
| 1362 | Epigenetic Regulation of Myeloid Cells. **2016**, 4, | 14 |
| 1361 | Determination of DNA Methylation and Hydroxymethylation Levels in Biological Samples by Field-Amplified Sample Injection-Capillary Zone Electrophoresis with UV Detection. **2016**, 79, 1649-1658 | 1 |
| 1360 | Basic Mechanisms in Epigenetics. **2016**, 1-24 | 1 |
| 1359 | Analysis of Ferrous on Ten-Eleven Translocation Activity and Epigenetic Modifications of Early Mouse Embryos by Fluorescence Microscopy. **2016**, 22, 342-8 | 5 |
| 1358 | LuxGLM: a probabilistic covariate model for quantification of DNA methylation modifications with complex experimental designs. **2016**, 32, i511-i519 | 12 |
| 1357 | Variations in 5-methylcytosine and 5-hydroxymethylcytosine among human brain, blood, and saliva using oxBS and the Infinium MethylationEPIC array. **2016**, 1, 1-8 | 5 |
| 1356 | DNA methylation dynamics in mouse preimplantation embryos revealed by mass spectrometry. **2016**, 6, 19134 | 31 |
| 1355 | Merging data from genetic and epigenetic approaches to better understand autistic spectrum disorder. **2016**, 8, 85-104 | 29 |
| 1354 | Role of TET enzymes in DNA methylation, development, and cancer. **2016**, 30, 733-50 | 539 |
| 1353 | Simultaneous single-molecule epigenetic imaging of DNA methylation and hydroxymethylation. **2016**, 113, 4338-43 | 39 |
| 1352 | A simple and novel method for the quantitative detection of 5-hydroxymethylcytosine using carbon nanotube field-effect transistors. **2016**, 9, 1701-1708 | 7 |
| 1351 | AP endonuclease 1 prevents the extension of a T/G mismatch by DNA polymerase to prevent mutations in CpGs during base excision repair. **2016**, 43, 89-97 | 3 |
| 1350 | Active DNA demethylation by DNA repair: Facts and uncertainties. **2016**, 44, 92-102 | 49 |
| 1349 | DNA methylation in hematopoietic development and disease. **2016**, 44, 783-790 | 10 |
| 1348 | DNA base modifications in honey bee and fruit fly genomes suggest an active demethylation machinery with species- and tissue-specific turnover rates. **2016**, 6, 9-15 | 10 |
| 1347 | NSUN3 methylase initiates 5-formylcytidine biogenesis in human mitochondrial tRNA(Met). **2016**, 12, 546-51 | 102 |
| 1346 | N6-methyladenosine modification in mRNA: machinery, function and implications for health and diseases. **2016**, 283, 1607-30 | 121 |

| | | |
|---|---|---|
| 1345 | A Structural Perspective on Readout of Epigenetic Histone and DNA Methylation Marks. **2016**, 8, a018754 | 59 |
| 1344 | Epigenetics and Neuroendocrinology. **2016**, | 1 |
| 1343 | DNA Methylation and Cancer. **2016**, 103-134 | 2 |
| 1342 | In This Issue. **2016**, 196, 1981-1982 | |
| 1341 | 5-Hydroxymethylation-associated epigenetic modifiers of Alzheimer's disease modulate Tau-induced neurotoxicity. **2016**, 25, 2437-2450 | 43 |
| 1340 | Epigenetic Programming of the HPA Axis by Early Life Adversity. **2016**, 115-133 | |
| 1339 | Hydroxymethylation is uniquely distributed within term placenta, and is associated with gene expression. **2016**, 30, 2874-84 | 28 |
| 1338 | The landscape of DNA methylation amid a perfect storm of autism aetiologies. **2016**, 17, 411-23 | 103 |
| 1337 | Mitochondrial polymerase gamma dysfunction and aging cause cardiac nuclear DNA methylation changes. **2016**, 48, 274-80 | 7 |
| 1336 | DNA methylation patterns as noninvasive biomarkers and targets of epigenetic therapies in colorectal cancer. **2016**, 8, 685-703 | 33 |
| 1335 | Non-catalytic roles for TET1 protein negatively regulating neuronal differentiation through srGAP3 in neuroblastoma cells. **2016**, 7, 351-61 | 17 |
| 1334 | Zinc Finger Protein 618 Regulates the Function of UHRF2 (Ubiquitin-like with PHD and Ring Finger Domains 2) as a Specific 5-Hydroxymethylcytosine Reader. **2016**, 291, 13679-88 | 10 |
| 1333 | N (6)-Methyladenosine (m(6)A) Methylation in mRNA with A Dynamic and Reversible Epigenetic Modification. **2016**, 58, 450-9 | 72 |
| 1332 | Base-resolution profiling of active DNA demethylation using MAB-seq and caMAB-seq. **2016**, 11, 1081-100 | 22 |
| 1331 | Epigenetic changes following traumatic brain injury and their implications for outcome, recovery and therapy. **2016**, 625, 26-33 | 38 |
| 1330 | High-throughput sequencing offers new insights into 5-hydroxymethylcytosine. **2016**, 7, 169-78 | 8 |
| 1329 | Characterization of How DNA Modifications Affect DNA Binding by C2H2 Zinc Finger Proteins. **2016**, 573, 387-401 | 18 |
| 1328 | The Ciona intestinalis cleavage clock is independent of DNA methylation. **2016**, 108, 168-176 | 3 |

| | | |
|---|---|---|
| 1327 | Modeling Functional Motions of Biological Systems by Customized Natural Moves. **2016**, 111, 710-721 | 6 |
| 1326 | WOMEN IN CANCER THEMATIC REVIEW: Diverse functions of DNA methylation: implications for prostate cancer and beyond. **2016**, 23, T169-T178 | 5 |
| 1325 | FOXA1 potentiates lineage-specific enhancer activation through modulating TET1 expression and function. **2016**, 44, 8153-64 | 36 |
| 1324 | Computational Approaches in Next-Generation Sequencing Data Analysis for Genome-Wide DNA Methylation Studies. **2016**, 197-226 | |
| 1323 | Preferential 5-Methylcytosine Oxidation in the Linker Region of Reconstituted Positioned Nucleosomes by Tet1 Protein. **2016**, 22, 16598-16601 | 8 |
| 1322 | Structural basis of damage recognition by thymine DNA glycosylase: Key roles for N-terminal residues. **2016**, 44, 10248-10258 | 29 |
| 1321 | Advanced systemic mastocytosis: from molecular and genetic progress to clinical practice. **2016**, 101, 1133-1143 | 46 |
| 1320 | Epigenetics and Cancer. **2016**, 1-28 | 2 |
| 1319 | Quantification of Oxidized 5-Methylcytosine Bases and TET Enzyme Activity. **2016**, 573, 365-85 | 26 |
| 1318 | Retinol and ascorbate drive erasure of epigenetic memory and enhance reprogramming to naïve pluripotency by complementary mechanisms. **2016**, 113, 12202-12207 | 107 |
| 1317 | Base Excision Repair and Nucleotide Excision Repair. **2016**, 275-302 | 3 |
| 1316 | Epigenetics of hematopoiesis and hematological malignancies. **2016**, 30, 2021-2041 | 79 |
| 1315 | Epigenetics and inheritance of phenotype variation in livestock. **2016**, 9, 31 | 58 |
| 1314 | Effect of Hydroxymethylcytosine on the Structure and Stability of Holliday Junctions. **2016**, 55, 5781-5789 | 5 |
| 1313 | Denys-Drash syndrome associated WT1 glutamine 369 mutants have altered sequence-preferences and altered responses to epigenetic modifications. **2016**, 44, 10165-10176 | 13 |
| 1312 | Human blood cell levels of 5-hydroxymethylcytosine (5hmC) decline with age, partly related to acquired mutations in TET2. **2016**, 44, 1072-1084 | 32 |
| 1311 | Transcription factors as readers and effectors of DNA methylation. **2016**, 17, 551-65 | 303 |
| 1310 | 5-Hydroxymethylcytosine in E-box motifs ACAT\|GTG and ACAC\|GTG increases DNA-binding of the B-HLH transcription factor TCF4. **2016**, 8, 936-45 | 17 |

| | | |
|---|---|---|
| 1309 | Are there specific readers of oxidized 5-methylcytosine bases?. **2016**, 38, 1038-47 | 28 |
| 1308 | TET2 Regulates Mast Cell Differentiation and Proliferation through Catalytic and Non-catalytic Activities. **2016**, 15, 1566-1579 | 53 |
| 1307 | Epigenetic Control of Early Mouse Development. **2016**, 120, 311-60 | 17 |
| 1306 | Role of Base Excision "Repair" Enzymes in Erasing Epigenetic Marks from DNA. **2016**, 116, 12711-12729 | 57 |
| 1305 | DNA methylation dynamics: identification and functional annotation. **2016**, 15, 470-484 | 13 |
| 1304 | Molecular Pathology: Predictive, Prognostic, and Diagnostic Markers in Lymphoid Neoplasms. **2016**, 9, 489-521 | 3 |
| 1303 | Simple and accurate single base resolution analysis of 5-hydroxymethylcytosine by catalytic oxidative bisulfite sequencing using micelle incarcerated oxidants. **2016**, 24, 4254-4262 | 10 |
| 1302 | Adenine methylation in eukaryotes: Apprehending the complex evolutionary history and functional potential of an epigenetic modification. **2016**, 38, 27-40 | 93 |
| 1301 | 5-Formylcytosin ist vermutlich eine semipermanente Base an definierten Genompositionen. **2016**, 128, 11974-11978 | 14 |
| 1300 | TET-catalyzed oxidation of intragenic 5-methylcytosine regulates CTCF-dependent alternative splicing. **2016**, 35, 335-55 | 64 |
| 1299 | NSUN3 and ABH1 modify the wobble position of mt-tRNAMet to expand codon recognition in mitochondrial translation. **2016**, 35, 2104-2119 | 137 |
| 1298 | Functions and Malfunctions of Mammalian DNA-Cytosine Deaminases. **2016**, 116, 12688-12710 | 70 |
| 1297 | Synthesis of (R)-Configured 2'-Fluorinated mC, hmC, fC, and caC Phosphoramidites and Oligonucleotides. **2016**, 18, 4368-71 | 15 |
| 1296 | A small molecule inhibitor of mutant IDH2 rescues cardiomyopathy in a D-2-hydroxyglutaric aciduria type II mouse model. **2016**, 39, 807-820 | 9 |
| 1295 | MicroRNAs in Control of Stem Cells in Normal and Malignant Hematopoiesis. **2016**, 2, 183-196 | 15 |
| 1294 | 5-Formylcytosine Could Be a Semipermanent Base in Specific Genome Sites. **2016**, 55, 11797-800 | 51 |
| 1293 | Tumour hypoxia causes DNA hypermethylation by reducing TET activity. **2016**, 537, 63-68 | 354 |
| 1292 | Cancer: Suffocation of gene expression. **2016**, 537, 42-43 | 3 |

| | | |
|---|---|---|
| 1291 | Tet1-dependent epigenetic modification of BDNF expression in dorsal horn neurons mediates neuropathic pain in rats. **2016**, 6, 37411 | 26 |
| 1290 | Formation and determination of the oxidation products of 5-methylcytosine in RNA. **2016**, 7, 5495-5502 | 77 |
| 1289 | Sequence-specific recognition of methylated DNA by an engineered transcription activator-like effector protein. **2016**, 52, 14238-14241 | 11 |
| 1288 | Distinctive Klf4 mutants determine preference for DNA methylation status. **2016**, 44, 10177-10185 | 18 |
| 1287 | Epigenetic regulation of axonal regenerative capacity. **2016**, 8, 1429-1442 | 20 |
| 1286 | Systems Biology Application in Synthetic Biology. **2016**, | |
| 1285 | Transcriptional and epigenetic mechanisms of cellular reprogramming to induced pluripotency. **2016**, 8, 1131-49 | 14 |
| 1284 | Uncovering the Role of the Methylome in Dementia and Neurodegeneration. **2016**, 22, 687-700 | 22 |
| 1283 | Isolation of Human Genomic DNA Sequences with Expanded Nucleobase Selectivity. **2016**, 138, 9910-8 | 18 |
| 1282 | Validation and quantification of genomic 5-carboxylcytosine (5caC) in mouse brain tissue by liquid chromatography-tandem mass spectrometry. **2016**, 8, 5812-5817 | 3 |
| 1281 | The elusive role of 5'-hydroxymethylcytosine. **2016**, 8, 1539-1551 | 22 |
| 1280 | Mechanistic insights into the recognition of 5-methylcytosine oxidation derivatives by the SUVH5 SRA domain. **2016**, 6, 20161 | 10 |
| 1279 | Epigenetic regulation of intestinal stem cells by Tet1-mediated DNA hydroxymethylation. **2016**, 30, 2433-2442 | 37 |
| 1278 | 5-Methylcytosine (5mC) and 5-Hydroxymethylcytosine (5hmC) Enhance the DNA Binding of CREB1 to the C/EBP Half-Site Tetranucleotide GCAA. **2016**, 55, 6940-6948 | 13 |
| 1277 | Mechanisms and Biological Roles of DNA Methyltransferases and DNA Methylation: From Past Achievements to Future Challenges. **2016**, 945, 1-17 | 27 |
| 1276 | Structure and Function of TET Enzymes. **2016**, 945, 275-302 | 21 |
| 1275 | Genetic Studies on Mammalian DNA Methyltransferases. **2016**, 945, 123-150 | 26 |
| 1274 | Cooperative Action between SALL4A and TET Proteins in Stepwise Oxidation of 5-Methylcytosine. **2016**, 64, 913-925 | 79 |

| | | |
|---|---|---|
| 1273 | Deficient methylation and formylation of mt-tRNA(Met) wobble cytosine in a patient carrying mutations in NSUN3. **2016**, 7, 12039 | 124 |
| 1272 | N6-Methyladenine: A Conserved and Dynamic DNA Mark. **2016**, 945, 213-246 | 68 |
| 1271 | Air pollution, epigenetics, and asthma. **2016**, 12, 51 | 40 |
| 1270 | DNA Base Flipping: A General Mechanism for Writing, Reading, and Erasing DNA Modifications. **2016**, 945, 321-341 | 24 |
| 1269 | An oligodeoxyribonucleotide containing 5-formyl-2'-deoxycytidine (fC) at the CpG site forms a covalent complex with DNA cytosine-5 methyltransferases (DNMTs). **2016**, 26, 5395-5398 | 7 |
| 1268 | Epigenetic Landmarks During Somatic Reprogramming. **2016**, 68, 854-857 | 2 |
| 1267 | A CRISPR-based approach for targeted DNA demethylation. **2016**, 2, 16009 | 243 |
| 1266 | Chiral Antioxidant-based Gold Nanoclusters Reprogram DNA Epigenetic Patterns. **2016**, 6, 33436 | 21 |
| 1265 | Epigenetic modification of PKM rescues aging-related cognitive impairment. **2016**, 6, 22096 | 16 |
| 1264 | Epigenetics Moving Towards Systems Biology. **2016**, 149-160 | |
| 1263 | Occurrence, Biological Consequences, and Human Health Relevance of Oxidative Stress-Induced DNA Damage. **2016**, 29, 2008-2039 | 85 |
| 1262 | Interrogating Key Positions of Size-Reduced TALE Repeats Reveals a Programmable Sensor of 5-Carboxylcytosine. **2016**, 11, 3294-3299 | 19 |
| 1261 | WITHDRAWN: Global and site-specific changes in 5-methylcytosine and 5-hydroxymethylcytosine after extended post-mortem interval. **2016**, | |
| 1260 | TET-mediated DNA demethylation controls gastrulation by regulating Lefty-Nodal signalling. **2016**, 538, 528-532 | 111 |
| 1259 | Quantifying mammalian genomic DNA hydroxymethylcytosine content using solid-state nanopores. **2016**, 6, 29565 | 26 |
| 1258 | Epigenetic drug discovery: breaking through the immune barrier. **2016**, 15, 835-853 | 102 |
| 1257 | Structural Basis for Excision of 5-Formylcytosine by Thymine DNA Glycosylase. **2016**, 55, 6205-6208 | 24 |
| 1256 | Biochemical reconstitution of TET1-TDG-BER-dependent active DNA demethylation reveals a highly coordinated mechanism. **2016**, 7, 10806 | 121 |

| | | |
|---|---|---|
| 1255 | Aberrant DNA methylation reprogramming in bovine SCNT preimplantation embryos. **2016**, 6, 30345 | 50 |
| 1254 | Filtrating colorectal cancer associated genes by integrated analyses of global DNA methylation and hydroxymethylation in cancer and normal tissue. **2016**, 6, 31826 | 13 |
| 1253 | Epigenetics, TET proteins, and hypoxia in epithelial-mesenchymal transition and tumorigenesis. **2016**, 6, 1 | 38 |
| 1252 | PRDM8 internal promoter hyperhydroxymethylation correlates with increased expression of the corresponding transcript in Down´syndrome. **2016**, 14, 1227-34 | 7 |
| 1251 | Genome-wide alteration of 5-hydroxymenthylcytosine in a mouse model of Alzheimer's disease. **2016**, 17, 381 | 40 |
| 1250 | Inhibition of Migration and Invasion by Tet-1 Overexpression in Human Lung Carcinoma H460 Cells. **2016**, 23, 89-98 | 7 |
| 1249 | Identification of Sequence Specificity of 5-Methylcytosine Oxidation by Tet1 Protein with High-Throughput Sequencing. **2016**, 17, 403-6 | 4 |
| 1248 | Fluorogene Markierung von 5-Formylpyrimidin-Nucleotiden in DNA und RNA. **2016**, 128, 1946-1950 | 11 |
| 1247 | The Emerging Role of DNA Methylation in Kidney Transplantation: A Perspective. **2016**, 16, 1070-8 | 16 |
| 1246 | Epigenetic regulation of neural stem cell property from embryo to adult. **2016**, 5, 1-10 | 28 |
| 1245 | Single-CpG resolution mapping of 5-hydroxymethylcytosine by chemical labeling and exonuclease digestion identifies evolutionarily unconserved CpGs as TET targets. **2016**, 17, 56 | 12 |
| 1244 | Environmentally induced epigenetic toxicity: potential public health concerns. **2016**, 46, 676-700 | 59 |
| 1243 | Methylation-assisted bisulfite sequencing to simultaneously map 5fC and 5caC on a genome-wide scale for DNA demethylation analysis. **2016**, 11, 1191-205 | 25 |
| 1242 | An interplay of the base excision repair and mismatch repair pathways in active DNA demethylation. **2016**, 44, 3713-27 | 39 |
| 1241 | The expanding scope and impact of epigenetic cytosine modifications. **2016**, 33, 67-73 | 19 |
| 1240 | Epigenetic mechanisms in neurogenesis. **2016**, 17, 537-49 | 195 |
| 1239 | The dynamic changes of DNA methylation in primordial germ cell differentiation. **2016**, 591, 305-12 | 7 |
| 1238 | The dual specificity phosphatase 2 gene is hypermethylated in human cancer and regulated by epigenetic mechanisms. **2016**, 16, 49 | 17 |

1237 Global, cancer-specific microRNA cluster hypomethylation was functionally associated with the development of non-B non-C hepatocellular carcinoma. **2016**, 15, 31 10

1236 TET3 inhibits TGF-β1-induced epithelial-mesenchymal transition by demethylating miR-30d precursor gene in ovarian cancer cells. **2016**, 35, 72 29

1235 Variation in 5-hydroxymethylcytosine across human cortex and cerebellum. **2016**, 17, 27 67

1234 A probabilistic generative model for quantification of DNA modifications enables analysis of demethylation pathways. **2016**, 17, 49 15

1233 5-Hydroxymethylcytosine discriminates between parathyroid adenoma and carcinoma. **2016**, 8, 31 17

1232 The detective, prognostic, and predictive value of DNA methylation in human esophageal squamous cell carcinoma. **2016**, 8, 43 52

1231 TET2-mediated 5-hydroxymethylcytosine induces genetic instability and mutagenesis. **2016**, 43, 78-88 16

1230 A primary role of TET proteins in establishment and maintenance of De Novo bivalency at CpG islands. **2016**, 44, 8682-8692 39

1229 AGE-induced keratinocyte MMP-9 expression is linked to TET2-mediated CpG demethylation. **2016**, 24, 489-500 21

1228 Distributive Processing by the Iron(II)/α-Ketoglutarate-Dependent Catalytic Domains of the TET Enzymes Is Consistent with Epigenetic Roles for Oxidized 5-Methylcytosine Bases. **2016**, 138, 9345-8 38

1227 Fluorogenic Labeling of 5-Formylpyrimidine Nucleotides in DNA and RNA. **2016**, 55, 1912-6 50

1226 Transcriptional Regulation of Brain-Derived Neurotrophic Factor (BDNF) by Methyl CpG Binding Protein 2 (MeCP2): a Novel Mechanism for Re-Myelination and/or Myelin Repair Involved in the Treatment of Multiple Sclerosis (MS). **2016**, 53, 1092-1107 46

1225 Uracil-DNA Glycosylase UNG Promotes Tet-mediated DNA Demethylation. **2016**, 291, 731-8 25

1224 Potential role of epigenetic mechanisms in regulation of trophoblast differentiation, migration, and invasion in the human placenta. **2016**, 10, 126-35 31

1223 Delineating citrinin biosynthesis: Ctn-ORF3 dioxygenase-mediated multi-step methyl oxidation precedes a reduction-mediated pyran ring cyclization. **2016**, 26, 392-396 7

1222 Ten-eleven translocation 1 (TET1) methylation is associated with childhood asthma and traffic-related air pollution. **2016**, 137, 797-805.e5 84

1221 Correlation between the DNA methyltransferase (Dnmt) gene family and genome-wide 5-methylcytosine (5mC) in rotifer, copepod, and fish. **2016**, 38, 13-23 7

1220 A computational investigation on the substrate preference of ten-eleven-translocation 2 (TET2). **2016**, 18, 4728-38 16

| | | |
|---|---|---|
| 1219 | Analysis of Combinatorial Epigenomic States. **2016**, 11, 621-31 | 3 |
| 1218 | The existence of 5-hydroxymethylcytosine and 5-formylcytosine in both DNA and RNA in mammals. **2016**, 52, 737-40 | 81 |
| 1217 | The Yin and Yang of Chromatin Dynamics In Stem Cell Fate Selection. **2016**, 32, 89-100 | 38 |
| 1216 | A Fluorescence Polarization Biophysical Assay for the Naegleria DNA Hydroxylase Tet1. **2016**, 7, 167-171 | 10 |
| 1215 | Properties and reactivity of nucleic acids relevant to epigenomics, transcriptomics, and therapeutics. **2016**, 45, 2637-55 | 27 |
| 1214 | 5-Hydroxymethylcytosine expression is associated with poor survival in cervical squamous cell carcinoma. **2016**, 46, 427-34 | 17 |
| 1213 | Roles of IDH1/2 and TET2 mutations in myeloid disorders. **2016**, 103, 627-33 | 35 |
| 1212 | Influence of major-groove chemical modifications of DNA on transcription by bacterial RNA polymerases. **2016**, 44, 3000-12 | 15 |
| 1211 | 5-Hydroxymethylcytosine-mediated alteration of transposon activity associated with the exposure to adverse in utero environments in human. **2016**, 25, 2208-2219 | 21 |
| 1210 | Decoding the non-coding genome: elucidating genetic risk outside the coding genome. **2016**, 15, 187-204 | 20 |
| 1209 | 5-Hydroxymethylcytosine Marks Sites of DNA Damage and Promotes Genome Stability. **2016**, 14, 1283-1292 | 107 |
| 1208 | Epigenetic Regulation of ES Cell Pluripotency Maintenance. **2016**, 231-249 | |
| 1207 | Portraits of TET-mediated DNA hydroxymethylation in cancer. **2016**, 36, 16-26 | 44 |
| 1206 | TET1 contributes to neurogenesis onset time during fetal brain development in mice. **2016**, 471, 437-43 | 12 |
| 1205 | Control of Foxp3 stability through modulation of TET activity. **2016**, 213, 377-97 | 194 |
| 1204 | The epigenetic role of vitamin C in health and disease. **2016**, 73, 1645-58 | 128 |
| 1203 | Epigenetic Deregulation in Autoimmune Disease. **2016**, 235-254 | |
| 1202 | Epigenomic Co-localization and Co-evolution Reveal a Key Role for 5hmC as a Communication Hub in the Chromatin Network of ESCs. **2016**, 14, 1246-1257 | 30 |

| | | |
|---|---|---|
| 1201 | Epigenetics, the Environment, and Children Health Across Lifespans. **2016**, | 3 |
| 1200 | Tet3 Reads 5-Carboxylcytosine through Its CXXC Domain and Is a Potential Guardian against Neurodegeneration. **2016**, 14, 493-505 | 84 |
| 1199 | Nucleic Acid Modifications in Regulation of Gene Expression. **2016**, 23, 74-85 | 155 |
| 1198 | Vitamin C Facilitates Demethylation of the Foxp3 Enhancer in a Tet-Dependent Manner. **2016**, 196, 2119-31 | 109 |
| 1197 | Active DNA Demethylation in Development, Human Disease, and Cancer. **2016**, 517-548 | |
| 1196 | The Impact of DNA Methylation in Hematopoietic Malignancies. **2016**, 2, 70-83 | 48 |
| 1195 | Single-base resolution analysis of DNA epigenome via high-throughput sequencing. **2016**, 59, 219-26 | 5 |
| 1194 | Drugging the methylome: DNA methylation and memory. **2016**, 51, 185-94 | 14 |
| 1193 | Hydroxymethylation of microRNA-365-3p Regulates Nociceptive Behaviors via Kcnh2. **2016**, 36, 2769-81 | 34 |
| 1192 | The catalytic activity of TET2 is essential for its myeloid malignancy-suppressive function in hematopoietic stem/progenitor cells. **2016**, 30, 1784-1788 | 17 |
| 1191 | DNA methylation dynamics in neurogenesis. **2016**, 8, 401-14 | 36 |
| 1190 | Epigenetics - A Different Way of Looking at Genetics. **2016**, | |
| 1189 | Hepatic stellate cell transdifferentiation involves genome-wide remodeling of the DNA methylation landscape. **2016**, 64, 661-73 | 82 |
| 1188 | Electrogenerated chemiluminescence biosensing method for the discrimination of DNA hydroxymethylation and assay of the glucosyltransferase activity. **2016**, 79, 92-7 | 20 |
| 1187 | Identification of methylated deoxyadenosines in vertebrates reveals diversity in DNA modifications. **2016**, 23, 24-30 | 161 |
| 1186 | Comprehensive Assessment of Oxidatively Induced Modifications of DNA in a Rat Model of Human Wilson's Disease. **2016**, 15, 810-7 | 29 |
| 1185 | Identification of MLL-fusion/MYC?miR-26?TET1 signaling circuit in MLL-rearranged leukemia. **2016**, 372, 157-65 | 21 |
| 1184 | Ultrasensitive determination of 5-methylcytosine and 5-hydroxymethylcytosine in genomic DNA by sheathless interfaced capillary electrophoresis-mass spectrometry. **2016**, 52, 2698-700 | 21 |

| | | |
|---|---|---|
| 1183 | De novo DNA methylation drives 5hmC accumulation in mouse zygotes. **2016**, 18, 225-233 | 153 |
| 1182 | Neil DNA glycosylases promote substrate turnover by Tdg during DNA demethylation. **2016**, 23, 116-124 | 55 |
| 1181 | Tet2 Catalyzes Stepwise 5-Methylcytosine Oxidation by an Iterative and de novo Mechanism. **2016**, 138, 730-3 | 51 |
| 1180 | Developmental DNA methyltransferase inhibitors in the treatment of gynecologic cancers. **2016**, 17, 323-38 | 7 |
| 1179 | Profiling of methylation and demethylation pathways during brain development and ageing. **2016**, 123, 189-203 | 5 |
| 1178 | Transient Activation of Mitoflashes Modulates Nanog at the Early Phase of Somatic Cell Reprogramming. **2016**, 23, 220-6 | 19 |
| 1177 | Immunohistochemical Detection of Oxidized Forms of 5-Methylcytosine in Embryonic and Adult Brain Tissue. **2016**, 125-137 | 2 |
| 1176 | DNA methylation, early life environment, and health outcomes. **2016**, 79, 212-9 | 65 |
| 1175 | Stable 5-Hydroxymethylcytosine (5hmC) Acquisition Marks Gene Activation During Chondrogenic Differentiation. **2016**, 31, 524-34 | 40 |
| 1174 | Simultaneous Quantification of Global 5mC and 5hmC Levels in the Nervous System Using an HPLC/MS Method. **2016**, 87-96 | |
| 1173 | Clustering of Cancer Cell Lines Using A Promoter-Targeted Liquid Hybridization Capture-Based Bisulfite Sequencing Approach. **2014**, | 2 |
| 1172 | The Mechanism and Function of Epigenetics in Uterine Leiomyoma Development. **2016**, 23, 163-75 | 68 |
| 1171 | The first international workshop on the epigenetics of osteoarthritis. **2017**, 58, 37-48 | 5 |
| 1170 | DNA repair and erasure of 5-methylcytosine in vertebrates. **2017**, 39, 1600218 | 10 |
| 1169 | Chemical and structural effects of base modifications in messenger RNA. **2017**, 541, 339-346 | 118 |
| 1168 | Acetylation Enhances TET2 Function in Protecting against Abnormal DNA Methylation during Oxidative Stress. **2017**, 65, 323-335 | 86 |
| 1167 | Elevated 5-hydroxymethycytosine and cell apoptosis induced by tetrachloro-1,4-benzoquinone in mouse embryonic stem cells. **2017**, 51, 1-4 | 1 |
| 1166 | Oxidized C5-methyl cytosine bases in DNA: 5-Hydroxymethylcytosine; 5-formylcytosine; and 5-carboxycytosine. **2017**, 107, 62-68 | 47 |

| | | | |
|---|---|---|---|
| 1165 | Epigenetic studies in Developmental Origins of Health and Disease: pitfalls and key considerations for study design and interpretation. **2017**, 8, 30-43 | | 32 |
| 1164 | Epigenomic landscape of 5-hydroxymethylcytosine reveals its transcriptional regulation of lncRNAs in colorectal cancer. **2017**, 116, 658-668 | | 24 |
| 1163 | Deficiency Accumulates l-2-Hydroxyglutarate with Progressive Leukoencephalopathy and Neurodegeneration. **2017**, 37, | | 15 |
| 1162 | TET1 promotes cisplatin-resistance via demethylating the vimentin promoter in ovarian cancer. **2017**, 41, 405-414 | | 20 |
| 1161 | Optical probes and sensors as perspective tools in epigenetics. **2017**, 25, 2295-2306 | | 3 |
| 1160 | TET-mediated hydroxymethylcytosine at the Pparlocus is required for initiation of adipogenic differentiation. **2017**, 41, 652-659 | | 32 |
| 1159 | The role of epigenomics in personalized medicine. **2017**, 2, 33-45 | | 42 |
| 1158 | Dynamics of a DNA Mismatch Site Held in Confinement Discriminate Epigenetic Modifications of Cytosine. **2017**, 139, 2750-2756 | | 29 |
| 1157 | Overexpression of TET dioxygenases in seminomas associates with low levels of DNA methylation and hydroxymethylation. **2017**, 56, 1837-1850 | | 13 |
| 1156 | Hematopoietic stem cells gone rogue. *Science*, **2017**, 355, 798-799 | 33.3 | 3 |
| 1155 | Three Pyrimidine Decarboxylations in the Absence of a Catalyst. **2017**, 56, 1498-1503 | | 1 |
| 1154 | Medulloblastoma and ependymoma cells display increased levels of 5-carboxylcytosine and elevated expression. **2017**, 9, 18 | | 12 |
| 1153 | Targeted DNA demethylation in human cells by fusion of a plant 5-methylcytosine DNA glycosylase to a sequence-specific DNA binding domain. **2017**, 12, 296-303 | | 15 |
| 1152 | The 5-Hydroxymethylcytosine (5hmC) Reader UHRF2 Is Required for Normal Levels of 5hmC in Mouse Adult Brain and Spatial Learning and Memory. **2017**, 292, 4533-4543 | | 27 |
| 1151 | Dynamics and Context-Dependent Roles of DNA Methylation. **2017**, 429, 1459-1475 | | 86 |
| 1150 | Dynamics of 5-carboxylcytosine during hepatic differentiation: Potential general role for active demethylation by DNA repair in lineage specification. **2017**, 12, 277-286 | | 18 |
| 1149 | Epigenetic Regulation: A New Frontier for Biomedical Engineers. **2017**, 19, 195-219 | | 97 |
| 1148 | The epigenetics of brain aging and psychiatric disorders. **2017**, 141-162 | | |

| | | |
|---|---|---|
| 1147 | TET2 in Normal and Malignant Hematopoiesis. **2017**, 7, | 38 |
| 1146 | Distinct roles for TET family proteins in regulating human erythropoiesis. **2017**, 129, 2002-2012 | 40 |
| 1145 | Bioinformatics Analysis of Epigenetics. **2017**, 247-273 | 0 |
| 1144 | Mechanistic insight into neurotoxicity induced by developmental insults. **2017**, 482, 408-418 | 20 |
| 1143 | Hypercholesterolemia Increases Colorectal Cancer Incidence by Reducing Production of NKT and □ T Cells from Hematopoietic Stem Cells. **2017**, 77, 2351-2362 | 32 |
| 1142 | DNA adductomics to study the genotoxic effects of red meat consumption with and without added animal fat in rats. **2017**, 230, 378-387 | 12 |
| 1141 | Technical advances in global DNA methylation analysis in human cancers. **2017**, 11, 10 | 25 |
| 1140 | Totipotency in the mouse. **2017**, 95, 687-694 | 11 |
| 1139 | MicroRNA-191 acts as a tumor promoter by modulating the TET1-p53 pathway in intrahepatic cholangiocarcinoma. **2017**, 66, 136-151 | 56 |
| 1138 | Differential expression of ten-eleven translocation genes in endometrial cancers. **2017**, 39, 1010428317695017 | 19 |
| 1137 | Advances in Vision Research, Volume I. **2017**, | |
| 1136 | UHRF2 regulates local 5-methylcytosine and suppresses spontaneous seizures. **2017**, 12, 551-560 | 10 |
| 1135 | O-GlcNAcylation and chromatin remodeling in mammals: an up-to-date overview. **2017**, 45, 323-338 | 22 |
| 1134 | An Intrinsic Epigenetic Barrier for Functional Axon Regeneration. **2017**, 94, 337-346.e6 | 87 |
| 1133 | Lineage-specific functions of TET1 in the postimplantation mouse embryo. **2017**, 49, 1061-1072 | 63 |
| 1132 | 5-Formylcytosine does not change the global structure of DNA. **2017**, 24, 544-552 | 35 |
| 1131 | Epigenetics in Brain Development and Disease. **2017**, 357-393 | |
| 1130 | Regulation of DNA demethylation by the XPC DNA repair complex in somatic and pluripotent stem cells. **2017**, 31, 830-844 | 17 |

| | | |
|---|---|---|
| 1129 | Emerging Role for Methylation in Multiple Sclerosis: Beyond DNA. **2017**, 23, 546-562 | 14 |
| 1128 | The role of 5-hydroxymethylcytosine in development, aging and age-related diseases. **2017**, 37, 28-38 | 41 |
| 1127 | The N6-Position of Adenine Is a Blind Spot for TAL-Effectors That Enables Effective Binding of Methylated and Fluorophore-Labeled DNA. **2017**, 12, 1719-1725 | 10 |
| 1126 | Single Cell Restriction Enzyme-Based Analysis of Methylation at Genomic Imprinted Regions in Preimplantation Mouse Embryos. **2017**, 1605, 171-189 | 3 |
| 1125 | Titanium dioxide nanoparticles induce size-dependent cytotoxicity and genomic DNA hypomethylation in human respiratory cells. **2017**, 7, 23560-23572 | 28 |
| 1124 | Comprehensive evaluation of genome-wide 5-hydroxymethylcytosine profiling approaches in human DNA. **2017**, 10, 16 | 53 |
| 1123 | APOBEC3A efficiently deaminates methylated, but not TET-oxidized, cytosine bases in DNA. **2017**, 45, 7655-7665 | 35 |
| 1122 | Nickel(II) Inhibits Tet-Mediated 5-Methylcytosine Oxidation by High Affinity Displacement of the Cofactor Iron(II). **2017**, 12, 1494-1498 | 27 |
| 1121 | DNA-friendly Cu(ii)/TEMPO-catalyzed 5-hydroxymethylcytosine-specific oxidation. **2017**, 53, 5756-5759 | 8 |
| 1120 | ALKBH1 is an RNA dioxygenase responsible for cytoplasmic and mitochondrial tRNA modifications. **2017**, 45, 7401-7415 | 106 |
| 1119 | The Functional Genome: Epigenetics and Epigenomics. **2017**, 21-44 | 1 |
| 1118 | Hopefully devoted to Q: targeting glutamine addiction in cancer. **2017**, 116, 1375-1381 | 56 |
| 1117 | Tet2 loss leads to hypermutagenicity in haematopoietic stem/progenitor cells. **2017**, 8, 15102 | 61 |
| 1116 | The chemistries and consequences of DNA and RNA methylation and demethylation. **2017**, 14, 1099-1107 | 65 |
| 1115 | Heavy Metals Induce Decline of Derivatives of 5-Methycytosine in Both DNA and RNA of Stem Cells. **2017**, 12, 1636-1643 | 31 |
| 1114 | Zygotic Genome Activation. **2017**, | 3 |
| 1113 | Epigenetic Study in Asian Eye Diseases. **2017**, 487-496 | |
| 1112 | Electrogenerated chemiluminescence biosensing method for highly sensitive detection of DNA hydroxymethylation: Combining glycosylation with Ru(phen) 3 2+ -assembled graphene oxide. **2017**, 795, 123-129 | 16 |

| | | |
|---|---|---|
| 1111 | DNA methylation: an epigenetic mark of cellular memory. **2017**, 49, e322 | 157 |
| 1110 | TET family dioxygenases and DNA demethylation in stem cells and cancers. **2017**, 49, e323 | 82 |
| 1109 | Non-heme dioxygenases in tumor hypoxia: They're all bound with the same fate. **2017**, 49, 21-25 | 8 |
| 1108 | MAX is an epigenetic sensor of 5-carboxylcytosine and is altered in multiple myeloma. **2017**, 45, 2396-2407 | 48 |
| 1107 | Epigenetics of cell fate reprogramming and its implications for neurological disorders modelling. **2017**, 99, 84-120 | 8 |
| 1106 | Epigenetic modifications in multiple myeloma: recent advances on the role of DNA and histone methylation. **2017**, 21, 91-101 | 47 |
| 1105 | Strand-specific CpG hemimethylation, a novel epigenetic modification functional for genomic imprinting. **2017**, 45, 8822-8834 | 6 |
| 1104 | How to stomach an epigenetic insult: the gastric cancer epigenome. **2017**, 14, 467-478 | 85 |
| 1103 | Neuroepigenomics in Aging and Disease. **2017**, | 3 |
| 1102 | Potential coordination role between O-GlcNAcylation and epigenetics. **2017**, 8, 713-723 | 27 |
| 1101 | Immunofluorescence Imaging Strategy for Evaluation of the Accessibility of DNA 5-Hydroxymethylcytosine in Chromatins. **2017**, 89, 5702-5706 | 13 |
| 1100 | The Nonbulky DNA Lesions Spiroiminodihydantoin and 5-Guanidinohydantoin Significantly Block Human RNA Polymerase II Elongation in Vitro. **2017**, 56, 3008-3018 | 9 |
| 1099 | Drug Addiction and DNA Modifications. **2017**, 978, 105-125 | 14 |
| 1098 | Determination of formylated DNA and RNA by chemical labeling combined with mass spectrometry analysis. **2017**, 981, 1-10 | 44 |
| 1097 | DNA Hydroxymethylation by Ten-eleven Translocation Methylcytosine Dioxygenase 1 and 3 Regulates Nociceptive Sensitization in a Chronic Inflammatory Pain Model. **2017**, 127, 147-163 | 16 |
| 1096 | Genome-wide profiling of DNA 5-hydroxymethylcytosine during rat Sertoli cell maturation. **2017**, 3, 17013 | 6 |
| 1095 | 5-Formylcytosine and 5-Carboxylcytosine Significantly Reduce the Catalytic Activity of HhaI DNA Methyltransferase. **2017**, 35, 853-856 | 5 |
| 1094 | A novel isoform of TET1 that lacks a CXXC domain is overexpressed in cancer. **2017**, 45, 8269-8281 | 25 |

| | | |
|---|---|---|
| 1093 | The role of 5-hydroxymethylcytosine in melanoma. **2017**, 27, 175-179 | 4 |
| 1092 | Regulation of Active DNA Demethylation through RAR-Mediated Recruitment of a TET/TDG Complex. **2017**, 19, 1685-1697 | 32 |
| 1091 | Epigenetic Modifications of DNA and Drug Addiction. **2017**, 127-147 | |
| 1090 | TET-mediated active DNA demethylation: mechanism, function and beyond. **2017**, 18, 517-534 | 698 |
| 1089 | 2-HG Inhibits Necroptosis by Stimulating DNMT1-Dependent Hypermethylation of the RIP3 Promoter. **2017**, 19, 1846-1857 | 32 |
| 1088 | Modulating epigenetic memory through vitamins and TET: implications for regenerative medicine and cancer treatment. **2017**, 9, 863-871 | 18 |
| 1087 | Epigenetic dysregulation of hematopoietic stem cells and preleukemic state. **2017**, 106, 34-44 | 20 |
| 1086 | Early Life Experiences and Their Influence on Epigenetic Marks and Human Brain Development. **2017**, 239-272 | |
| 1085 | Single-Cell 5-Formylcytosine Landscapes of Mammalian Early Embryos and ESCs at Single-Base Resolution. **2017**, 20, 720-731.e5 | 93 |
| 1084 | TET3-mediated DNA oxidation promotes ATR-dependent DNA damage response. **2017**, 18, 781-796 | 35 |
| 1083 | Self-assembling of calcium salt of the new DNA base 5-carboxylcytosine. **2017**, 407, 297-306 | 3 |
| 1082 | Combinatorial DNA methylation codes at repetitive elements. **2017**, 27, 934-946 | 28 |
| 1081 | Epigenetic modification of nucleic acids: from basic studies to medical applications. **2017**, 46, 2844-2872 | 89 |
| 1080 | Quantitative LC-MS Provides No Evidence for m dA or m dC in the Genome of Mouse Embryonic Stem Cells and Tissues. **2017**, 56, 11268-11271 | 75 |
| 1079 | Epigenetic Status of H19-Igf2 Imprinted Genes and Loss of 5-Hydroxymethylcytosine in the Brain of Cloned Goats. **2017**, 19, 199-207 | 4 |
| 1078 | DNA methylation aberrancies as a guide for surveillance and treatment of human cancers. **2017**, 12, 416-432 | 66 |
| 1077 | Simultaneous mapping of active DNA demethylation and sister chromatid exchange in single cells. **2017**, 31, 511-523 | 34 |
| 1076 | Transmission of Metabolic Dysfunction Across Generations. **2017**, 32, 51-59 | 12 |

| | | |
|---|---|---|
| 1075 | Neurobiological and Psychological Aspects of Brain Recovery. **2017**, | 1 |
| 1074 | Ten-Eleven Translocation-2 (Tet2) Is Involved in Myogenic Differentiation of Skeletal Myoblast Cells in Vitro. **2017**, 7, 43539 | 25 |
| 1073 | Isocitrate dehydrogenase (IDH) inhibition as treatment of myeloid malignancies: Progress and future directions. **2017**, 177, 123-128 | 14 |
| 1072 | Engineered Split-TET2 Enzyme for Inducible Epigenetic Remodeling. **2017**, 139, 4659-4662 | 18 |
| 1071 | Methylation-sensitive enrichment of minor DNA alleles using a double-strand DNA-specific nuclease. **2017**, 45, e39 | 17 |
| 1070 | Mechanism of transcription-coupled DNA modification recognition. **2017**, 7, 9 | 7 |
| 1069 | Computational study of the reactivity of cytosine derivatives. **2017**, 38, 1049-1056 | 5 |
| 1068 | Translatable Models of Brain and Cognitive Reserve. **2017**, 79-104 | 1 |
| 1067 | Thymine DNA glycosylase modulates DNA damage response and gene expression by base excision repair-dependent and independent mechanisms. **2017**, 22, 392-405 | 4 |
| 1066 | Tissue-specific methylation profile in obese patients with type 2 diabetes before and after Roux-en-Y gastric bypass. **2017**, 9, 15 | 15 |
| 1065 | Mutations along a TET2 active site scaffold stall oxidation at 5-hydroxymethylcytosine. **2017**, 13, 181-187 | 45 |
| 1064 | Lead (Pb) exposure reduces global DNA methylation level by non-competitive inhibition and alteration of dnmt expression. **2017**, 9, 149-160 | 47 |
| 1063 | Effect of small molecules on cell reprogramming. **2017**, 13, 277-313 | 11 |
| 1062 | A driver role for GABA metabolism in controlling stem and proliferative cell state through GHB production in glioma. **2017**, 133, 645-660 | 31 |
| 1061 | Epitranscriptome: m6A and its function in stem cell biology. **2017**, 39, 371-378 | 3 |
| 1060 | Immune disease-associated variants in gene enhancers point to BET epigenetic mechanisms for therapeutic intervention. **2017**, 9, 573-584 | 28 |
| 1059 | Alternative roles for oxidized mCs and TETs. **2017**, 42, 1-7 | 21 |
| 1058 | Distinct cellular and molecular environments support aging-related DNA methylation changes in the substantia nigra. **2017**, 9, 21-31 | 14 |

1057 Epigenetics and Gene Expression in Cancer, Inflammatory and Immune Diseases. **2017**,

1056 Changes of host DNA methylation in domestic chickens infected with Salmonella enterica. **2017**, 96, 545-550 5

1055 Cucurbit[7]uril-Driven Host-Guest Chemistry for Reversible Intervention of 5-Formylcytosine-Targeted Biochemical Reactions. **2017**, 139, 16903-16912 45

1054 Isoform-specific localization of DNMT3A regulates DNA methylation fidelity at bivalent CpG islands. **2017**, 36, 3421-3434 64

1053 Re-expressing Epigenetically Silenced Genes by Inducing DNA Demethylation Through Targeting of Ten-Eleven Translocation 2 to Any Given Genomic Locus. **2017**, 1654, 321-335 1

1052 Selective and Sensitive Detection of Methylcytosine by Aerolysin Nanopore under Serum Condition. **2017**, 89, 11685-11689 41

1051 Base Excision Repair and Epigenetic Regulation. **2017**, 391-419

1050 Determination of 5-hydroxymethyl-2?-deoxycytidine in Rice by High-performance Liquid Chromatography□tandem Mass Spectrometry with Isotope Dilution. **2017**, 50, 2351-2358 2

1049 Ascorbate regulates haematopoietic stem cell function and leukaemogenesis. **2017**, 549, 476-481 272

1048 Functional impacts of 5-hydroxymethylcytosine, 5-formylcytosine, and 5-carboxycytosine at a single hemi-modified CpG dinucleotide in a gene promoter. **2017**, 45, 11033-11042 21

1047 5-hydroxymethylcytosine accumulation in postmitotic neurons results in functional demethylation of expressed genes. **2017**, 114, E7812-E7821 77

1046 An epigenetic switch repressing in gonadotropes activates the reproductive axis. **2017**, 114, 10131-10136 24

1045 Roles of RNA methylation by means of N-methyladenosine (mA) in human cancers. **2017**, 408, 112-120 142

1044 The Molecular Basis of DNA Demethylation. **2017**, 53-73

1043 Emerging Roles for Epigenetic Programming in the Control of Inflammatory Signaling Integration in Heath and Disease. **2017**, 1024, 63-90 5

1042 DNA Methylome Analysis Identifies Transcription Factor-Based Epigenomic Signatures of Multilineage Competence in Neural Stem/Progenitor Cells. **2017**, 20, 2992-3003 30

1041 Oxygen nanobubbles revert hypoxia by methylation programming. **2017**, 7, 9268 28

1040 Reversible DNA□rotein Cross-Linking at Epigenetic DNA Marks. **2017**, 129, 14318-14322 11

| | | |
|---|---|---|
| 1039 | TET proteins in natural and induced differentiation. **2017**, 46, 202-208 | 20 |
| 1038 | Silencing of retrotransposons by SETDB1 inhibits the interferon response in acute myeloid leukemia. **2017**, 216, 3535-3549 | 81 |
| 1037 | Reversible DNA-Protein Cross-Linking at Epigenetic DNA Marks. **2017**, 56, 14130-14134 | 53 |
| 1036 | DNA and Histone Methylation in Gastric Cancer. **2017**, 377-390 | |
| 1035 | Immunostaining for DNA Modifications: Computational Analysis of Confocal Images. **2017**, | 2 |
| 1034 | Nei-like 1 (NEIL1) excises 5-carboxylcytosine directly and stimulates TDG-mediated 5-formyl and 5-carboxylcytosine excision. **2017**, 7, 9001 | 19 |
| 1033 | Hypoxia-induced TET1 facilitates trophoblast cell migration and invasion through HIF1 signaling pathway. **2017**, 7, 8077 | 18 |
| 1032 | Fluorogenic labeling and single-base resolution analysis of 5-formylcytosine in DNA. **2017**, 8, 7443-7447 | 35 |
| 1031 | Methylcytosine dioxygenase TET3 interacts with thyroid hormone nuclear receptors and stabilizes their association to chromatin. **2017**, 114, 8229-8234 | 17 |
| 1030 | Melatonin impedes Tet1-dependent mGluR5 promoter demethylation to relieve pain. **2017**, 63, e12436 | 21 |
| 1029 | 5-Formyl- and 5-Carboxydeoxycytidines Do Not Cause Accumulation of Harmful Repair Intermediates in Stem Cells. **2017**, 139, 10359-10364 | 38 |
| 1028 | Do social insects support Haig's kin theory for the evolution of genomic imprinting?. **2017**, 12, 725-742 | 13 |
| 1027 | 5-Formylcytosine Yields DNA-Protein Cross-Links in Nucleosome Core Particles. **2017**, 139, 10617-10620 | 75 |
| 1026 | Oncogenic Activities of IDH1/2 Mutations: From Epigenetics to Cellular Signaling. **2017**, 27, 738-752 | 67 |
| 1025 | Quantitative LC-MS liefert keinen Hinweis auf m6dA oder m4dC im Genom von Mausstammzellen und -geweben. **2017**, 129, 11422-11425 | 3 |
| 1024 | Integrin 4 Upregulates Amphiregulin and Epiregulin through Base Excision Repair-Mediated DNA Demethylation and Promotes Genome-wide DNA Hypomethylation. **2017**, 7, 6174 | 6 |
| 1023 | Tet-Mediated DNA Demethylation Is Required for SWI/SNF-Dependent Chromatin Remodeling and Histone-Modifying Activities That Trigger Expression of the Sp7 Osteoblast Master Gene during Mesenchymal Lineage Commitment. **2017**, 37, | 23 |
| 1022 | The DNA Methylcytosine Dioxygenase Tet2 Sustains Immunosuppressive Function of Tumor-Infiltrating Myeloid Cells to Promote Melanoma Progression. **2017**, 47, 284-297.e5 | 74 |

| | | |
|---|---|---|
| 1021 | Epigenetics and DNA methylomic profiling in Alzheimer's disease and other neurodegenerative diseases. **2017**, 143, 158-170 | 51 |
| 1020 | Epigenetics and Cerebellar Neurodevelopmental Disorders. **2017**, 197-218 | 5 |
| 1019 | DNA methylation in CHO cells. **2017**, 258, 206-210 | 6 |
| 1018 | Lysine demethylase KDM2A inhibits TET2 to promote DNA methylation and silencing of tumor suppressor genes in breast cancer. **2017**, 6, e369 | 39 |
| 1017 | Engineering DNA Backbone Interactions Results in TALE Scaffolds with Enhanced 5-Methylcytosine Selectivity. **2017**, 7, 15067 | 7 |
| 1016 | Dynamic expression of TET1, TET2, and TET3 dioxygenases in mouse and human placentas throughout gestation. **2017**, 59, 46-56 | 10 |
| 1015 | Molecular cloning of chicken TET family genes and role of chicken TET1 in erythropoiesis. **2017**, 490, 753-759 | 4 |
| 1014 | A rapid mass spectrometric method for the measurement of catalytic activity of ten-eleven translocation enzymes. **2017**, 534, 28-35 | 7 |
| 1013 | The protective role of TET2 in erythroid iron homeostasis against oxidative stress and erythropoiesis. **2017**, 38, 106-115 | 4 |
| 1012 | DNA mismatch repair and its many roles in eukaryotic cells. **2017**, 773, 174-187 | 89 |
| 1011 | Role of glutathione in the regulation of epigenetic mechanisms in disease. **2017**, 112, 36-48 | 61 |
| 1010 | The Role of Epigenetic Regulation in Transcriptional Memory in the Immune System. **2017**, 106, 43-69 | 10 |
| 1009 | mA RNA Modification Determines Cell Fate by Regulating mRNA Degradation. **2017**, 19, 225-231 | 27 |
| 1008 | Air Pollution and the Epigenome: A Model Relationship for the Exploration of Toxicoepigenetics. **2017**, 6, 18-25 | 7 |
| 1007 | Transcriptional determination and functional specificity of myeloid cells: making sense of diversity. **2017**, 17, 595-607 | 41 |
| 1006 | Mutations in human AID differentially affect its ability to deaminate cytidine and 5-methylcytidine in ssDNA substrates in vitro. **2017**, 7, 3873 | 4 |
| 1005 | DNA hypomethylation and aberrant expression of the human endogenous retrovirus ERVWE1/syncytin-1 in seminomas. **2017**, 14, 20 | 14 |
| 1004 | Asymmetric DNA methylation of CpG dyads is a feature of secondary DMRs associated with the / imprinting cluster in mouse. **2017**, 10, 31 | 6 |

| | | |
|---|---|---|
| 1003 | or - mutations do not predict outcome and do not cause loss of 5-hydroxymethylcytosine or altered histone modifications in central chondrosarcomas. **2017**, 7, 8 | 32 |
| 1002 | Novel Therapies for Acute Myeloid Leukemia: Are We Finally Breaking the Deadlock?. **2017**, 12, 413-447 | 18 |
| 1001 | Ten-eleven translocation 2 interacts with forkhead box O3 and regulates adult neurogenesis. **2017**, 8, 15903 | 65 |
| 1000 | Current epigenetic aspects the clinical kidney researcher should embrace. **2017**, 131, 1649-1667 | 9 |
| 999 | Substituents' effect in electron attachment to epigenetic modifications of cytosine. **2017**, 146, 244314 | 3 |
| 998 | DNA modifications in models of alcohol use disorders. **2017**, 60, 19-30 | 28 |
| 997 | Association of TET1 expression with colorectal cancer progression. **2017**, 52, 312-320 | 22 |
| 996 | DNA demethylation pathways: Additional players and regulators. **2017**, 39, 1-13 | 93 |
| 995 | High fat diet and exercise lead to a disrupted and pathogenic DNA methylome in mouse liver. **2017**, 12, 55-69 | 31 |
| 994 | Comparative dynamics of 5-methylcytosine reprogramming and TET family expression during preimplantation mammalian development in mouse and sheep. **2017**, 89, 86-96 | 17 |
| 993 | Analysis of DNA Hydroxymethylation Using Colorimetric Assay. **2017**, 1456, 89-97 | 1 |
| 992 | Impact of combinatorial dysfunctions of Tet2 and Ezh2 on the epigenome in the pathogenesis of myelodysplastic syndrome. **2017**, 31, 861-871 | 20 |
| 991 | TET proteins regulate the lineage specification and TCR-mediated expansion of iNKT cells. **2017**, 18, 45-53 | 80 |
| 990 | DNA methylation in systemic lupus erythematosus. **2017**, 9, 505-525 | 53 |
| 989 | The Yin-Yang Dynamics of DNA Methylation Is the Key Regulator for Smooth Muscle Cell Phenotype Switch and Vascular Remodeling. **2017**, 37, 84-97 | 52 |
| 988 | Oxidatively generated base modifications in DNA: Not only carcinogenic risk factor but also regulatory mark?. **2017**, 107, 258-265 | 47 |
| 987 | Epigenetic control of Ecell function and failure. **2017**, 123, 24-36 | 23 |
| 986 | A reusable laser wrapped graphene-Ag array based SERS sensor for trace detection of genomic DNA methylation. **2017**, 92, 755-762 | 53 |

985 Mechanisms of DNA Methylation and Demethylation During Mammalian Development. **2017**, 11-24 27

984 5-hydroxymethylcytosine in DNA repair: A new player or a red herring?. **2017**, 16, 1499-1501 15

983 Methyl-dependent and spatial-specific DNA recognition by the orthologous transcription factors human AP-1 and Epstein-Barr virus Zta. **2017**, 45, 2503-2515 33

982 An Engineered Split-TET2 Enzyme for Chemical-inducible DNA Hydroxymethylation and Epigenetic Remodeling. **2017**, 1

981 DNA Methylation and Adult Neurogenesis. **2017**, 3, 5-26 35

980 Ten-eleven translocation 1 dysfunction reduces 5-hydroxymethylcytosine expression levels in gastric cancer cells. **2018**, 15, 278-284 11

979 Binding of MBD proteins to DNA blocks Tet1 function thereby modulating transcriptional noise. **2017**, 45, 2438-2457 25

978 . **2017**, 4

977 Oxidative Stress, Nrf2, and Epigenetic Modification Contribute to Anticancer Drug Resistance. **2017** , 33, 1-5 63

976 RUNX1 regulates site specificity of DNA demethylation by recruitment of DNA demethylation machineries in hematopoietic cells. **2017**, 1, 1699-1711 39

975 microRNA-22 can regulate expression of the long non-coding RNA MEG3 in acute myeloid leukemia. **2017**, 8, 65211-65217 19

974 Epigenetics of Rheumatic Diseases. **2017**, 344-354

973 DNA base flipping analytical pipeline. **2017**, 2, bpx010 2

972 Metabolic Regulation of DNA Methylation in Mammalian Cells. **2017**, 293-305 1

971 Aging Epigenetics. **2017**, 371-388 2

970 CpG and Non-CpG Methylation in Epigenetic Gene Regulation and Brain Function. **2017**, 8, 185

969 DNA Methylation, Psychostimulant-Induced Addiction and the Position of Cocaine. **2017**, 89-96

968 Role of DNA and RNA N6-Adenine Methylation in Regulating Stem Cell Fate. **2018**, 13, 31-38 27

| | | |
|---|---|---|
| 967 | Chromatin Switches during Neural Cell Differentiation and Their Dysregulation by Prenatal Alcohol Exposure. **2017**, 8, | 11 |
| 966 | DNA Methylation Dynamics and Cocaine in the Brain: Progress and Prospects. **2017**, 8, | 24 |
| 965 | miR-30a as Potential Therapeutics by Targeting TET1 through Regulation of Drp-1 Promoter Hydroxymethylation in Idiopathic Pulmonary Fibrosis. **2017**, 18, | 22 |
| 964 | DNMT1 mutations found in HSANIE patients affect interaction with UHRF1 and neuronal differentiation. **2017**, 26, 1522-1534 | 29 |
| 963 | New Insights into 5hmC DNA Modification: Generation, Distribution and Function. **2017**, 8, 100 | 107 |
| 962 | TET Methylcytosine Oxidases in T Cell and B Cell Development and Function. **2017**, 8, 220 | 38 |
| 961 | Heritable Gene Regulation in the CD4:CD8 T Cell Lineage Choice. **2017**, 8, 291 | 25 |
| 960 | Implications of DNA Methylation in Parkinson's Disease. **2017**, 10, 225 | 48 |
| 959 | A method for the efficient and selective identification of 5-hydroxymethyluracil in genomic DNA. **2017**, 2, | 4 |
| 958 | Epigenetics in Chronic Pain. **2017**, 185-226 | 1 |
| 957 | Vitamin C in Stem Cell Biology: Impact on Extracellular Matrix Homeostasis and Epigenetics. **2017**, 2017, 8936156 | 51 |
| 956 | New insights on the role of DNA methylation from a global view. **2017**, 22, 644-668 | 13 |
| 955 | TET and 5hmC in Neurodevelopment and the Adult Brain. **2017**, 61-79 | 1 |
| 954 | RNA Epigenetics (Epitranscriptomics). **2017**, 19-35 | |
| 953 | Epigenetics and drug addiction: translational aspects. **2017**, 335-360 | |
| 952 | Epigenetics of Virus-Induced Tumors: Perspectives for Therapeutic Targeting. **2017**, 23, 4842-4861 | 2 |
| 951 | Repression of the expression of TET2 by ZEB1 contributes to invasion and growth in glioma cells. **2017**, 15, 2625-2632 | 10 |
| 950 | Neuroepigenetic mechanisms in disease. **2017**, 10, 47 | 37 |

| | | |
|---|---|---|
| 949 | A screening system to identify transcription factors that induce binding site-directed DNA demethylation. **2017**, 10, 60 | 32 |
| 948 | Uncoordinated expression of DNA methylation-related enzymes in human cancer. **2017**, 10, 61 | 6 |
| 947 | Regulation and Functional Significance of 5-Hydroxymethylcytosine in Cancer. **2017**, 1, 19 | 3 |
| 946 | Hypoxia induces the expression of TET enzymes in HepG2 cells. **2017**, 14, 6457-6462 | 18 |
| 945 | DNA Modifications and Memory. **2017**, 95-111 | 0 |
| 944 | Approaches to Detecting DNA Base Modification in the Brain. **2017**, 27-41 | |
| 943 | DNA methylation/hydroxymethylation in melanoma. **2017**, 8, 78163-78173 | 32 |
| 942 | Dynamics and Function of DNA Methylation During Development. **2017**, 65-94 | |
| 941 | Vitamin C Against Cancer. **2017**, | 1 |
| 940 | Soft Computing for Biological Systems. **2018**, | 2 |
| 939 | Developing DNA methylation-based diagnostic biomarkers. **2018**, 45, 87-97 | 29 |
| 938 | Oxygen gradients can determine epigenetic asymmetry and cellular differentiation via differential regulation of Tet activity in embryonic stem cells. **2018**, 46, 1210-1226 | 23 |
| 937 | Epigenetics in the Oral Cavity. **2018**, 119-125 | 1 |
| 936 | Theoretical Studies on the Photophysics and Photochemistry of 5-Formylcytosine and 5-Carboxylcytosine: The Oxidative Products of Epigenetic Modification of Cytosine in DNA. **2018**, 122, 2704-2714 | 8 |
| 935 | Module-Based Knowledge Discovery for Multiple-Cytosine-Variant Methylation Profile. **2018**, 169-186 | 1 |
| 934 | 2-Oxoglutarate-Dependent Oxygenases. **2018**, 87, 585-620 | 171 |
| 933 | A cross-omics approach to investigate temporal gene expression regulation by 5-hydroxymethylcytosine via TBH-derived oxidative stress showed involvement of different regulatory kinases. **2018**, 48, 318-328 | 3 |
| 932 | Redox control in cancer development and progression. **2018**, 63, 88-98 | 68 |

| | | |
|---|---|---|
| 931 | Under-Evaluated or Unassessed Pathogenic Pathways in Autoimmune Hepatitis and Implications for Future Management. **2018**, 63, 1706-1725 | 11 |
| 930 | Complete, Programmable Decoding of Oxidized 5-Methylcytosine Nucleobases in DNA by Chemoselective Blockage of Universal Transcription-Activator-Like Effector Repeats. **2018**, 140, 5904-5908 | 7 |
| 929 | Chemoselective labeling and site-specific mapping of 5-formylcytosine as a cellular nucleic acid modification. **2018**, 592, 2032-2047 | 17 |
| 928 | Excision of the doubly methylated base ,5-dimethylcytosine from DNA by Nei and Fpg proteins. **2018**, 373, | 5 |
| 927 | CD4 Helper and CD8 Cytotoxic T Cell Differentiation. **2018**, 36, 579-601 | 74 |
| 926 | DNA methylcytosine dioxygenase ten-eleven translocation 2 enhances lipopolysaccharide-induced cytokine expression in human dental pulp cells by regulating MyD88 hydroxymethylation. **2018**, 373, 477-485 | 15 |
| 925 | Exploring the extent and scope of epigenetic inheritance. **2018**, 14, 345-355 | 50 |
| 924 | ETV2-TET1/TET2 Complexes Induce Endothelial Cell-Specific Robo4 Expression via Promoter Demethylation. **2018**, 8, 5653 | 14 |
| 923 | Defining the impact of sumoylation on substrate binding and catalysis by thymine DNA glycosylase. **2018**, 46, 5159-5170 | 6 |
| 922 | Thioether Macrocyclic Peptides Selected against TET1 Compact Catalytic Domain Inhibit TET1 Catalytic Activity. **2018**, 19, 979-985 | 8 |
| 921 | DNA Methylation in Animal Models of Psychosis. **2018**, 157, 105-132 | 9 |
| 920 | DNA methylation dynamics of genomic imprinting in mouse development. **2018**, 99, 252-262 | 24 |
| 919 | Clonal Hematopoiesis and Evolution to Hematopoietic Malignancies. **2018**, 22, 157-170 | 225 |
| 918 | Decoding the dynamic DNA methylation and hydroxymethylation landscapes in endodermal lineage intermediates during pancreatic differentiation of hESC. **2018**, 46, 2883-2900 | 41 |
| 917 | DNA repair activity of Fe(II)/2OG-dependent dioxygenases affected by low iron level in Saccharomyces cerevisiae. **2018**, 18, | 7 |
| 916 | Epigenetic Modifications of Cytosine: Biophysical Properties, Regulation, and Function in Mammalian DNA. **2018**, 40, 1700199 | 16 |
| 915 | Interplay between TETs and microRNAs in the adult brain for memory formation. **2018**, 8, 1678 | 17 |
| 914 | Chromatin modifications in metabolic disease: Potential mediators of long-term disease risk. **2018**, 10, e1416 | 11 |

| | | |
|---|---|---|
| 913 | Epigenetic regulation in B-cell maturation and its dysregulation in autoimmunity. **2018**, 15, 676-684 | 64 |
| 912 | Epigenetic changes and their implications in autoimmune hepatitis. **2018**, 48, e12899 | 21 |
| 911 | Naphthalimide derivatives as multifunctional molecules for detecting 5-formylpyrimidine by both PAGE analysis and dot-blot assays. **2018**, 54, 1497-1500 | 30 |
| 910 | The TET2/E-cadherin/Ecatenin regulatory loop confers growth and invasion in hepatocellular carcinoma cells. **2018**, 363, 218-226 | 9 |
| 909 | Reading cytosine modifications within chromatin. **2018**, 9, 240-247 | 5 |
| 908 | Somatic Mutations and Clonal Hematopoiesis: Unexpected Potential New Drivers of Age-Related Cardiovascular Disease. **2018**, 122, 523-532 | 72 |
| 907 | Dynamics of the excised base release in thymine DNA glycosylase during DNA repair process. **2018**, 46, 568-581 | 13 |
| 906 | Modificaomics: deciphering the functions of biomolecule modifications. **2018**, 61, 381-392 | 27 |
| 905 | Epigenetics, microbiota, and intraocular inflammation: New paradigms of immune regulation in the eye. **2018**, 64, 84-95 | 39 |
| 904 | FAM20C could be targeted by TET1 to promote odontoblastic differentiation potential of human dental pulp cells. **2018**, 51, e12426 | 17 |
| 903 | Recognition of Oxidized 5-Methylcytosine Derivatives in DNA by Natural and Engineered Protein Scaffolds. **2018**, 18, 105-116 | 1 |
| 902 | Analysis of DNA modifications in aging research. **2018**, 40, 11-29 | 28 |
| 901 | Enrichment and Quantitative Determination of 5-(Hydroxymethyl)-2'-deoxycytidine, 5-(Formyl)-2'-deoxycytidine, and 5-(Carboxyl)-2'-deoxycytidine in Human Urine of Breast Cancer Patients by Magnetic Hyper-Cross-Linked Microporous Polymers Based on Polyionic Liquid. **2018**, 90, 3906-3913 | 16 |
| 900 | Connections Between Metabolism and Epigenetics in Programming Cellular Differentiation. **2018**, 36, 221-246 | 58 |
| 899 | Computational chemical biology and drug design: Facilitating protein structure, function, and modulation studies. **2018**, 38, 914-950 | 23 |
| 898 | [Role and alterations of DNA methylation during the aging and cancer]. **2018**, 159, 3-15 | 6 |
| 897 | Epigenetic reprogramming during spermatogenesis and male factor infertility. **2018**, 156, R9-R21 | 37 |
| 896 | Inhibition of DNA methyltransferase leads to increased genomic 5-hydroxymethylcytosine levels in hematopoietic cells. **2018**, 8, 584-592 | 6 |

| | | |
|---|---|---|
| 895 | Quantification of DNA methylation and hydroxymethylation in Alzheimer's disease mouse model using LC-MS/MS. **2018**, 53, 590-594 | 3 |
| 894 | Selective recognition of 4-methylcytosine in DNA by engineered transcription-activator-like effectors. **2018**, 373, | 23 |
| 893 | Could use of Selective Serotonin Reuptake Inhibitors During Lactation Cause Persistent Effects on Maternal Bone?. **2018**, 23, 5-25 | 3 |
| 892 | Epigenetics and testicular germ cell tumors. **2018**, 661, 22-33 | 23 |
| 891 | CpG Islands. **2018**, | |
| 890 | Experimental Design and Bioinformatic Analysis of DNA Methylation Data. **2018**, 1766, 175-194 | |
| 889 | Imprinted gene dysregulation in a null mouse model is stochastic and variable in the germline and offspring. **2018**, 145, | 10 |
| 888 | Epigenetic control of gene regulation during development and disease: A view from the retina. **2018**, 65, 1-27 | 60 |
| 887 | A Critical Role of TET1/2 Proteins in Cell-Cycle Progression of Trophoblast Stem Cells. **2018**, 10, 1355-1368 | 28 |
| 886 | Gene specific-loci quantitative and single-base resolution analysis of 5-formylcytosine by compound-mediated polymerase chain reaction. **2018**, 9, 3723-3728 | 28 |
| 885 | Generation of Whole Genome Bisulfite Sequencing Libraries for Comprehensive DNA Methylome Analysis. **2018**, 1767, 291-298 | 2 |
| 884 | Whole-Genome Bisulfite Sequencing for the´Analysis of Genome-Wide DNA Methylation and Hydroxymethylation Patterns at Single-Nucleotide Resolution. **2018**, 1767, 311-349 | 19 |
| 883 | Zinc Fingers, TALEs, and CRISPR Systems: A Comparison of Tools for Epigenome Editing. **2018**, 1767, 19-63 | 47 |
| 882 | Designing Epigenome Editors: Considerations of Biochemical and Locus Specificities. **2018**, 1767, 65-87 | 1 |
| 881 | Voluntary Physical Exercise Induces Expression and Epigenetic Remodeling of VegfA in the Rat Hippocampus. **2018**, 55, 567-582 | 24 |
| 880 | Methyl-donor depletion of head and neck cancer cells in vitro establishes a less aggressive tumour cell phenotype. **2018**, 57, 1321-1332 | 5 |
| 879 | The mitochondrial epitranscriptome: the roles of RNA modifications in mitochondrial translation and human disease. **2018**, 75, 241-260 | 72 |
| 878 | Vitamin C - A new player in regulation of the cancer epigenome. **2018**, 51, 59-67 | 47 |

| | | |
|---|---|---|
| 877 | DNA methylation and antipsychotic treatment mechanisms in schizophrenia: Progress and future directions. **2018**, 81, 38-49 | 44 |
| 876 | Pharmacoepigenetics and Toxicoepigenetics: Novel Mechanistic Insights and Therapeutic Opportunities. **2018**, 58, 161-185 | 36 |
| 875 | Epigenetic regulators: multifunctional proteins modulating hypoxia-inducible factor-α protein stability and activity. **2018**, 75, 1043-1056 | 34 |
| 874 | Advancing Development of Synthetic Gene Regulators. **2018**, | |
| 873 | DNA methylation aberrancies delineate clinically distinct subsets of colorectal cancer and provide novel targets for epigenetic therapies. **2018**, 37, 566-577 | 46 |
| 872 | Mechanisms of anti-cancer effects of ascorbate: Cytotoxic activity and epigenetic modulation. **2018**, 69, 57-64 | 46 |
| 871 | Epigenetic Events in Lung Cancer: Chromatin Remodeling and DNA Methylation. **2018**, 104-116.e5 | 1 |
| 870 | The role of TET-mediated DNA hydroxymethylation in prostate cancer. **2018**, 462, 41-55 | 11 |
| 869 | Melatonin improves the fertilization capacity and developmental ability of bovine oocytes by regulating cytoplasmic maturation events. **2018**, 64, e12445 | 61 |
| 868 | Non-canonical Bases in the Genome: The Regulatory Information Layer in DNA. **2018**, 57, 4296-4312 | 56 |
| 867 | Nichtkanonische Basen im Genom: die regulative Informationsebene in der DNA. **2018**, 130, 4377-4394 | 11 |
| 866 | Selective inhibition of CTCF binding by iAs directs TET-mediated reprogramming of 5-hydroxymethylation patterns in iAs-transformed cells. **2018**, 338, 124-133 | 7 |
| 865 | The TET enzymes. **2018**, 75, 1339-1348 | 42 |
| 864 | Vitamin C Sensitizes Melanoma to BET Inhibitors. **2018**, 78, 572-583 | 35 |
| 863 | Linking inter-individual variability to endocrine disruptors: insights for epigenetic inheritance. **2018**, 29, 141-152 | 8 |
| 862 | Tet-Assisted Bisulfite Sequencing (TAB-seq). **2018**, 1708, 645-663 | 16 |
| 861 | Affinity-Based Enrichment Techniques for the Genome-Wide Analysis of 5-Hydroxymethylcytosine. **2018**, 1708, 679-696 | 2 |
| 860 | Tagmentation-Based Library Preparation for Low DNA Input Whole Genome Bisulfite Sequencing. **2018**, 1708, 105-122 | 7 |

| | | |
|---|---|---|
| 859 | A Summary of the Biological Processes, Disease-Associated Changes, and Clinical Applications of DNA Methylation. **2018**, 1708, 3-30 | 24 |
| 858 | DNA methylation reprogramming of human cancer cells by expression of a plant 5-methylcytosine DNA glycosylase. **2018**, 13, 95-107 | 6 |
| 857 | The effects of DNA methylation on human psychology. **2018**, 346, 47-65 | 39 |
| 856 | Target specificity of mammalian DNA methylation and demethylation machinery. **2018**, 16, 1419-1435 | 29 |
| 855 | 5-Formylcytosine to cytosine conversion by C-C bond cleavage in vivo. **2018**, 14, 72-78 | 55 |
| 854 | TET2 expression is a potential prognostic and predictive biomarker in cytogenetically normal acute myeloid leukemia. **2018**, 233, 5838-5846 | 16 |
| 853 | Advances in Hypoxia-Inducible Factor Biology. **2018**, 27, 281-298 | 330 |
| 852 | The Loss of TET2 Promotes CD8 T Cell Memory Differentiation. **2018**, 200, 82-91 | 72 |
| 851 | Epigenomics in tobacco risk assessment: Opportunities for integrated new approaches. **2018**, 11-12, 67-83 | 2 |
| 850 | Reaction Mechanism and Substrate Specificity of -orotate Decarboxylase: A Combined Theoretical and Experimental Study. **2018**, 6, 608 | 7 |
| 849 | Defective 5-Methylcytosine Oxidation in Tumorigenesis. **2018**, | 0 |
| 848 | Epigenetic dysregulation of Oxtr in Tet1-deficient mice has implications for neuropsychiatric disorders. **2018**, 3, | 13 |
| 847 | Vitamin C promotes decitabine or azacytidine induced DNA hydroxymethylation and subsequent reactivation of the epigenetically silenced tumour suppressor in colon cancer cells. **2018**, 9, 32822-32840 | 22 |
| 846 | Cancer RNome: Nature & Evolution. **2018**, | |
| 845 | Population Epigenomics: Advancing Understanding of Phenotypic Plasticity, Acclimation, Adaptation and Diseases. **2018**, 179-260 | 12 |
| 844 | Selective Labeling Aldehydes in DNA. **2018**, 90, 14616-14621 | 11 |
| 843 | SNIP1 Recruits TET2 to Regulate c-MYC Target Genes and Cellular DNA Damage Response. **2018**, 25, 1485-1500.e4 | 31 |
| 842 | RNome and Chromatin Dynamics. **2018**, 79-112 | |

| | | |
|---|---|---|
| 841 | Temporal Integrative Analysis of mRNA and microRNAs Expression Profiles and Epigenetic Alterations in Female SAMP8, a Model of Age-Related Cognitive Decline. **2018**, 9, 596 | 13 |
| 840 | Epigenetic Mechanisms: Role in Hematopoietic Stem Cell Lineage Commitment and Differentiation. **2018**, 19, 1683-1695 | 10 |
| 839 | Ten-Eleven Translocation Proteins Modulate the Response to Environmental Stress in Mice. **2018**, 25, 3194-3203.e4 | 27 |
| 838 | Metabolic Signaling into Chromatin Modifications in the Regulation of Gene Expression. **2018**, 19, | 14 |
| 837 | Epigenetic Mechanisms in Plants. **2018**, 88, 21-47 | 4 |
| 836 | High Dietary Fat Intake Affects DNA Methylation/Hydroxymethylation in Mouse Heart: Epigenetic Hints for Obesity-Related Cardiac Dysfunction. **2019**, 63, e1800970 | 8 |
| 835 | Reduced mRNA and Protein Expression Levels of Tet Methylcytosine Dioxygenase 3 in Endothelial Progenitor Cells of Patients of Type 2 Diabetes With Peripheral Artery Disease. **2018**, 9, 2859 | 5 |
| 834 | Inter-Cell and Inter-Chromosome Variability of 5-Hydroxymethylcytosine Patterns in Noncultured Human Embryonic and Extraembryonic Cells. **2018**, 156, 150-157 | 7 |
| 833 | Epigenetics of Modified DNA Bases: 5-Methylcytosine and Beyond. **2018**, 9, 640 | 84 |
| 832 | Exploiting Substrate Promiscuity To Develop Activity-Based Probes for Ten-Eleven Translocation Family Enzymes. **2018**, 140, 17329-17332 | 12 |
| 831 | Post-synthetic modification of oligonucleotides containing 5-trifluoromethylpyrimidine bases. **2018**, 74, 6854-6860 | 4 |
| 830 | Nondestructive, base-resolution sequencing of 5-hydroxymethylcytosine using a DNA deaminase. **2018**, | 91 |
| 829 | A similar effect of P16 hydroxymethylation and true-methylation on the prediction of malignant transformation of oral epithelial dysplasia: observation from a prospective study. **2018**, 18, 918 | 5 |
| 828 | Immunohistochemical Detection of 5-Methylcytosine and 5-Hydroxymethylcytosine in Developing and Postmitotic Mouse Retina. **2018**, | 5 |
| 827 | A unique role for DNA (hydroxy)methylation in epigenetic regulation of human inhibitory neurons. **2018**, 4, eaau6190 | 46 |
| 826 | Ten-eleven Translocation-2 Regulates DNA Hydroxymethylation Status and Psoriasiform Dermatitis Progression in Mice. **2018**, 98, 585-593 | 7 |
| 825 | Epigenetic Regulation of Skin Wound Healing. **2018**, 293-314 | 1 |
| 824 | TET2 Deficiency Causes Germinal Center Hyperplasia, Impairs Plasma Cell Differentiation, and Promotes B-cell Lymphomagenesis. **2018**, 8, 1632-1653 | 77 |

| | | |
|---|---|---|
| 823 | Bisulfite-Free, Nanoscale Analysis of 5-Hydroxymethylcytosine at Single Base Resolution. **2018**, 140, 13190-13194 | 42 |
| 822 | TET2 deficiency leads to stem cell factor-dependent clonal expansion of dysfunctional erythroid progenitors. **2018**, 132, 2406-2417 | 29 |
| 821 | DNA Demethylation by DNMT3A and DNMT3B in vitro and of Methylated Episomal DNA in Transiently Transfected Cells. **2018**, 1861, 1048-1061 | 5 |
| 820 | Transcription factor Zbtb38 downregulates the expression of anti-inflammatory IL1r2 in mouse model of rheumatoid arthritis. **2018**, 1861, 1040-1047 | 10 |
| 819 | APURINIC/APYRIMIDINIC ENDONUCLEASE2 and ZINC FINGER DNA 3'-PHOSPHOESTERASE Play Overlapping Roles in the Maintenance of Epigenome and Genome Stability. **2018**, 30, 1954-1970 | 10 |
| 818 | Zinc Finger Readers of Methylated DNA. **2018**, 23, | 31 |
| 817 | Methods for detection of cytosine and thymine modifications in DNA. **2018**, 2, 332-348 | 28 |
| 816 | Hypermethylation of the Micro-RNA 145 Promoter Is the Key Regulator for NLRP3 Inflammasome-Induced Activation and Plaque Formation. **2018**, 3, 604-624 | 23 |
| 815 | Epigenetics and Regulation of Oxidative Stress in Diabetic Retinopathy. **2018**, 59, 4831-4840 | 49 |
| 814 | The Krebs Cycle Connection: Reciprocal Influence Between Alternative Splicing Programs and Cell Metabolism. **2018**, 8, 408 | 10 |
| 813 | Impact of Global DNA Methylation in Treatment Outcome of Colorectal Cancer Patients. **2018**, 9, 1173 | 21 |
| 812 | Superovulation Influences Methylation Reprogramming and Delays Onset of DNA Replication in Both Pronuclei of Mouse Zygotes. **2018**, | 3 |
| 811 | Chemical Control System of Epigenetics. **2018**, 18, 1833-1853 | 9 |
| 810 | Supramolecular Coordination-Directed Reversible Regulation of Protein Activities at Epigenetic DNA Marks. **2018**, 140, 15842-15849 | 11 |
| 809 | 5-Formylcytosine organizes nucleosomes and forms Schiff base interactions with histones in mouse embryonic stem cells. **2018**, 10, 1258-1266 | 61 |
| 808 | Loss of UHRF2 Is Associated With Non-small Cell Lung Carcinoma Progression. **2018**, 9, 2994-3005 | 9 |
| 807 | DNA methylation 101: what is important to know about DNA methylation and its role in SLE risk and disease heterogeneity. **2018**, 5, e000285 | 21 |
| 806 | Clonal Hematopoiesis and Its Impact on Cardiovascular Disease. **2018**, 83, 2-11 | 25 |

| | | |
|---|---|---|
| 805 | Gga-miR-130b-3p inhibits MSB1 cell proliferation, migration, invasion, and its downregulation in MD tumor is attributed to hypermethylation. **2018**, 9, 24187-24198 | 5 |
| 804 | Epigenetic Regulation of Skin Development and Regeneration. **2018**, | |
| 803 | Maintenance DNA Methyltransferase Activity in the Presence of Oxidized Forms of 5-Methylcytosine: Structural Basis for Ten Eleven Translocation-Mediated DNA Demethylation. **2018**, 57, 6061-6069 | 14 |
| 802 | Insight into wild-type and T1372E TET2-mediated 5hmC oxidation using QM/MM calculations. **2018**, 9, 8433-8445 | 16 |
| 801 | TET mediated epigenetic regulation of iNKT cell lineage fate choice and function. **2018**, 101, 564-573 | 4 |
| 800 | Adventures in Defining Roles of Oxygenases in the Regulation of Protein Biosynthesis. **2018**, 18, 1760-1781 | 3 |
| 799 | DNA methylation profile at a satellite region is associated with aberrant placentation in cloned calves. **2018**, 70, 25-33 | 12 |
| 798 | Modular affinity-labeling of the cytosine demethylation base elements in DNA. **2020**, 10, 20253 | |
| 797 | Targeted expression profiling reveals distinct stages of early canine fibroblast reprogramming are regulated by 2-oxoglutarate hydroxylases. **2020**, 11, 528 | 4 |
| 796 | Vitamin C Transporters and Their Implications in Carcinogenesis. **2020**, 12, | 5 |
| 795 | Evaluation of the influence of global DNA methylation level in patients with acute coronary syndrome. **2020**, 511, 336-341 | 0 |
| 794 | Progress and promises of epigenetic drugs and epigenetic diets in cancer prevention and therapy: A clinical update. **2020**, | 10 |
| 793 | The Role of Epigenetic Functionalization of Implants and Biomaterials in Osseointegration and Bone Regeneration-A Review. **2020**, 25, | 3 |
| 792 | DNA Methylation in Nonalcoholic Fatty Liver Disease. **2020**, 21, | 25 |
| 791 | The Distinct Function and Localization of METTL3/METTL14 and METTL16 Enzymes in Cardiomyocytes. **2020**, 21, | 2 |
| 790 | Induction of DEAD Box helicase 5 in early adipogenesis is regulated by Ten-eleven translocation 2. **2020**, 1865, 158684 | 0 |
| 789 | Metabolic regulation of kisspeptin - the link between energy balance and reproduction. **2020**, 16, 407-420 | 44 |
| 788 | Estradiol-Induced Epigenetically Mediated Mechanisms and Regulation of Gene Expression. **2020**, 21, | 18 |

| | | |
|---|---|---|
| 787 | Alterations of regulatory factors and DNA methylation pattern in thyroid cancer. **2020**, 28, 255-268 | 10 |
| 786 | DHX33 Recruits Gadd45a To Cause DNA Demethylation and Regulates a Subset of Gene Transcription. **2020**, 40, | 3 |
| 785 | Hydroxymethylation and tumors: can 5-hydroxymethylation be used as a marker for tumor diagnosis and treatment?. **2020**, 14, 15 | 9 |
| 784 | DNA methylation dynamics underlie metamorphic gene regulation programs in Xenopus tadpole brain. **2020**, 462, 180-196 | 5 |
| 783 | Epigenetics factors in nonalcoholic fatty liver disease. **2020**, 1-16 | 4 |
| 782 | A genome-scale map of DNA methylation turnover identifies site-specific dependencies of DNMT and TET activity. **2020**, 11, 2680 | 43 |
| 781 | Ascorbic Acid Promotes Functional Restoration after Spinal Cord Injury Partly by Epigenetic Modulation. **2020**, 9, | 5 |
| 780 | The DNA methylation landscape of hematological malignancies: an update. **2020**, 14, 1616-1639 | 8 |
| 779 | DNA methylation. **2020**, 93-108 | 1 |
| 778 | Proteases Activate Pregnancy Neutrophils by a Protease-Activated Receptor 1 Pathway: Epigenetic Implications for Preeclampsia. **2020**, 27, 2115-2127 | 5 |
| 777 | Translational Opportunities for Microfluidic Technologies to Enable Precision Epigenomics. **2020**, 92, 7989-7997 | 6 |
| 776 | Mitochondrial DNA methylation misleads global DNA methylation detected by antibody-based methods. **2020**, 601, 113789 | 2 |
| 775 | Quantification of global DNA methylation level using 5-methylcytosine dioxygenase. **2020**, 412, 5299-5305 | 1 |
| 774 | Genetics and epigenetics purpose in nonalcoholic fatty liver disease. **2020**, 14, 733-748 | 0 |
| 773 | TETs compete with DNMT3 activity in pluripotent cells at thousands of methylated somatic enhancers. **2020**, 52, 819-827 | 36 |
| 772 | Epigenetic mechanisms in the regulation of lymphocyte differentiation. **2020**, 77-116 | 3 |
| 771 | Germline TET2 loss of function causes childhood immunodeficiency and lymphoma. **2020**, 136, 1055-1066 | 25 |
| 770 | DNA methylation and the core pluripotency network. **2020**, 464, 145-160 | 4 |

| | | |
|---|---|---|
| 769 | DNA Methylation-Mediated Modulation of Endocytosis as Potential Mechanism for Synaptic Function Regulation in Murine Inhibitory Cortical Interneurons. **2020**, 30, 3921-3937 | 16 |
| 768 | Advances in targeted therapy for malignant lymphoma. **2020**, 5, 15 | 26 |
| 767 | Natural, modified DNA bases. **2020**, 57, 1-7 | 14 |
| 766 | Interplay between Clonal Hematopoiesis of Indeterminate Potential and Metabolism. **2020**, 31, 525-535 | 10 |
| 765 | Structural adaptation of vertebrate endonuclease G for 5-hydroxymethylcytosine recognition and function. **2020**, 48, 3962-3974 | 1 |
| 764 | Who Rules the Cell? An Epi-Tale of Histone, DNA, RNA, and the Metabolic Deep State. **2020**, 11, 181 | 9 |
| 763 | TET2 haploinsufficiency alters reprogramming into induced pluripotent stem cells. **2020**, 44, 101755 | 3 |
| 762 | Vitamin C regulates Schwann cell myelination by promoting DNA demethylation of pro-myelinating genes. **2021**, 157, 1759-1773 | 7 |
| 761 | Direct observation and analysis of TET-mediated oxidation processes in a DNA origami nanochip. **2020**, 48, 4041-4051 | 10 |
| 760 | The Emerging Role of Ten-Eleven Translocation 1 in Epigenetic Responses to Environmental Exposures. **2020**, 13, 2516865720910155 | 8 |
| 759 | Accurate targeted long-read DNA methylation and hydroxymethylation sequencing with TAPS. **2020**, 21, 54 | 31 |
| 758 | Complete Profiling of Methyl-CpG-Binding Domains for Combinations of Cytosine Modifications at CpG Dinucleotides Reveals Differential Read-out in Normal and Rett-Associated States. **2020**, 10, 4053 | 6 |
| 757 | CG Demethylation Leads to Sequence Mutations in an Anther Culture of Barley Due to the Presence of Cu, Ag Ions in the Medium and Culture Time. **2020**, 21, | 8 |
| 756 | Mass Spectrometry to Study Chromatin Compaction. **2020**, 9, | 2 |
| 755 | Multi and transgenerational epigenetic effects of di-(2-ethylhexyl) phthalate (DEHP) in liver. **2020**, 402, 115123 | 11 |
| 754 | Tet2-mediated epigenetic drive for astrocyte differentiation from embryonic neural stem cells. **2020**, 6, 30 | 4 |
| 753 | TET1 Deficiency Impairs Morphogen-free Differentiation of Human Embryonic Stem Cells to Neuroectoderm. **2020**, 10, 10343 | 2 |
| 752 | FULL ISSUE PDF. **2020**, 5, I-CIV | |

| | | |
|---|---|---|
| 751 | Inhalation exposure to cigarette smoke and inflammatory agents induces epigenetic changes in the lung. **2020**, 10, 11290 | 8 |
| 750 | Epigenetics for Clinicians from the Perspective of Pediatric Rheumatic Diseases. **2020**, 22, 46 | 3 |
| 749 | Exploring Epigenetic Drugs in the Regulation of Inflammatory Autoimmune Diseases. **2020**, | 1 |
| 748 | The Contribution of Epigenetics to Cancer Immunotherapy. **2020**, 41, 676-691 | 50 |
| 747 | DeepH&M: Estimating single-CpG hydroxymethylation and methylation levels from enrichment and restriction enzyme sequencing methods. **2020**, 6, | 2 |
| 746 | Ten-eleven translocation methyl-cytosine dioxygenase 2 deficiency exacerbates renal ischemia-reperfusion injury. **2020**, 12, 98 | 4 |
| 745 | Is ascorbic acid a key signaling molecule integrating the activities of 2-oxoglutarate-dependent dioxygenases? Shifting the paradigm. **2020**, 178, 104173 | 3 |
| 744 | Opportunities and challenges in long-read sequencing data analysis. **2020**, 21, 30 | 431 |
| 743 | N-Adenosine Methylation in RNA and a Reduced mG/TMG Level in Non-Coding RNAs Appear at Microirradiation-Induced DNA Lesions. **2020**, 9, | 16 |
| 742 | Clonal hematopoiesis driven by somatic mutations: A new player in atherosclerotic cardiovascular disease. **2020**, 297, 120-126 | 9 |
| 741 | Clonal Hematopoiesis: A ́New ́Step ́Linking Inflammation to ́Heart ́Failure. **2020**, 5, 196-207 | 12 |
| 740 | Interactions between metabolism and chromatin in plant models. **2020**, 38, 100951 | 27 |
| 739 | Driver mutations in acute myeloid leukemia. **2020**, 27, 49-57 | 16 |
| 738 | Analyse des aktiven Deformylierungsmechanismus von 5-Formyl-2?-Desoxycytidin in Stammzellen. **2020**, 132, 5639-5643 | 6 |
| 737 | Peroxotungstate oxidation-mediated two-phase amplification system (POM-TPAS) for bisulfite-free quantification of locus-specific 5-hydroxymethylcytosine. **2020**, 56, 3111-3114 | 4 |
| 736 | Protease Amplification of the Inflammatory Response Induced by Commensal Bacteria: Implications for Racial Disparity in Term and Preterm Birth. **2020**, 27, 246-259 | 2 |
| 735 | Regulatory Dynamics of Tet1 and Oct4 Resolve Stages of Global DNA Demethylation and Transcriptomic Changes in Reprogramming. **2020**, 30, 2150-2169.e9 | 4 |
| 734 | Analysis of TET2 and EZH2 gene functions in chromosome instability in acute myeloid leukemia. **2020**, 10, 2706 | 9 |

| | | |
|---|---|---|
| 733 | Epigenomic analysis of 5-hydroxymethylcytosine (5hmC) reveals novel DNA methylation markers for lung cancers. **2020**, 22, 154-161 | 8 |
| 732 | Curcumin induces re-expression of BRCA1 and suppression of β-synuclein by modulating DNA promoter methylation in breast cancer cell lines. **2020**, 43, 827-838 | 13 |
| 731 | DNA Methylation Editing by CRISPR-guided Excision of 5-Methylcytosine. **2020**, 432, 2204-2216 | 19 |
| 730 | Polymerization retardation isothermal amplification strategy enables the sensitive and facile investigation of the flanking sequence preference of ten-eleven translocation 2 protein. **2020**, 1109, 140-147 | |
| 729 | Aberrant DNA and histone methylation during zygotic genome activation in goat cloned embryos. **2020**, 148, 27-36 | 12 |
| 728 | Epigenetic insights into multiple sclerosis disease progression. **2020**, 288, 82-102 | 4 |
| 727 | Hypercholesterolemia Accelerates the Aging Phenotypes of Hematopoietic Stem Cells by a Tet1-Dependent Pathway. **2020**, 10, 3567 | 6 |
| 726 | Coordination of germ layer lineage choice by TET1 during primed pluripotency. **2020**, 34, 598-618 | 1 |
| 725 | DFT Study on the Deglycosylation of Methylated, Oxidized, and Canonical Pyrimidine Nucleosides in Water: Implications for Epigenetic Regulation and DNA Repair. **2020**, 124, 2392-2400 | 0 |
| 724 | Tet1 Deficiency Leads to Premature Reproductive Aging by Reducing Spermatogonia Stem Cells and Germ Cell Differentiation. **2020**, 23, 100908 | 11 |
| 723 | Invited Review: Epigenetics in neurodevelopment. **2020**, 46, 6-27 | 7 |
| 722 | Adipocyte-Induced FABP4 Expression in Ovarian Cancer Cells Promotes Metastasis and Mediates Carboplatin Resistance. **2020**, 80, 1748-1761 | 44 |
| 721 | BCG-induced trained immunity in macrophage: reprograming of glucose metabolism. **2020**, 39, 83-96 | 5 |
| 720 | The roles of TET family proteins in development and stem cells. **2020**, 147, | 16 |
| 719 | Combination Therapy with Vitamin C Could Eradicate Cancer Stem Cells. **2020**, 10, | 13 |
| 718 | Aberrant DNA methylation profile exacerbates inflammation and neurodegeneration in multiple sclerosis patients. **2020**, 17, 21 | 19 |
| 717 | Hormone-epigenome interactions in behavioural regulation. **2020**, 118, 104680 | 7 |
| 716 | Facile Clamp-Assisted Ligation Strategy for Direct Discrimination and Background-Free Quantification of Site-Specific 5-Formylcytosine. **2020**, 92, 3477-3482 | 5 |

| | | |
|---|---|---|
| 715 | Oxidized Derivatives of 5-Methylcytosine Alter the Stability and Dehybridization Dynamics of Duplex DNA. **2020**, 124, 1160-1174 | 8 |
| 714 | Analysis of an Active Deformylation Mechanism of 5-Formyl-deoxycytidine (fdC) in Stem Cells. **2020**, 59, 5591-5594 | 16 |
| 713 | TET methylcytosine oxidases: new insights from a decade of research. **2020**, 45, 1 | 26 |
| 712 | Phenotypic correlates and prognostic outcomes of TET2 mutations in myelodysplastic syndrome/myeloproliferative neoplasm overlap syndromes: A comprehensive study of 504 adult patients. **2020**, 95, E86-E89 | 2 |
| 711 | Selective targeting of TET catalytic domain promotes somatic cell reprogramming. **2020**, 117, 3621-3626 | 19 |
| 710 | Updates on DNA methylation modifiers in acute myeloid leukemia. **2020**, 99, 693-701 | 10 |
| 709 | Epigenetic Control of a Local Chromatin Landscape. **2020**, 21, | 10 |
| 708 | Dysregulation of 2-oxoglutarate-dependent dioxygenases by hyperglycaemia: does this link diabetes and vascular disease?. **2020**, 12, 59 | 3 |
| 707 | Cocaine-induced changes in behaviour and DNA methylation in rats are influenced by inter-individual differences in spontaneous exploratory activity. **2020**, 34, 680-692 | 3 |
| 706 | Nucleobase Modifiers Identify TET Enzymes as Bifunctional DNA Dioxygenases Capable of Direct N-Demethylation. **2020**, 59, 11312-11315 | 8 |
| 705 | All roads lead to Rome: the many ways to pluripotency. **2020**, 37, 1029-1036 | 5 |
| 704 | Oxidation potential-dependent selective detection of epigenetic 5-hydroxymethylcytosine using nanocarbon film. **2020**, 314, 128092 | 4 |
| 703 | Demethylation Status of Somatic DNA Extracted From Pituitary Neuroendocrine Tumors Indicates Proliferative Behavior. **2020**, 105, | 3 |
| 702 | Effect of PFOA on DNA Methylation and Alternative Splicing in Mouse Liver. **2020**, 329, 38-46 | 14 |
| 701 | DNA demethylation is a driver for chick retina regeneration. **2020**, 15, 998-1019 | 7 |
| 700 | Epigenetic TET-Catalyzed Oxidative Products of 5-Methylcytosine Impede Z-DNA Formation of CG Decamers. **2020**, 5, 8056-8064 | 5 |
| 699 | Nucleobase Modifiers Identify TET Enzymes as Bifunctional DNA Dioxygenases Capable of Direct N-Demethylation. **2020**, 132, 11408-11411 | 0 |
| 698 | Challenges in Analysis of Hydrophilic Metabolites Using Chromatography Coupled with Mass Spectrometry. **2020**, 4, 140-162 | 8 |

| | | |
|---|---|---|
| 697 | How mA sneaks into DNA. **2020**, 16, 604-605 | 0 |
| 696 | Epigenetic Mechanisms in Leukemias and Lymphomas. **2020**, 10, | 5 |
| 695 | TET3 regulates DNA hydroxymethylation of neuroprotective genes following focal ischemia. **2021**, 41, 590-603 | 5 |
| 694 | The Role of Somatic Mutations in Acute Myeloid Leukemia Pathogenesis. **2021**, 11, | 2 |
| 693 | TET1 promotes growth of T-cell acute lymphoblastic leukemia and can be antagonized via PARP inhibition. **2021**, 35, 389-403 | 13 |
| 692 | TDP43 proteinopathy is associated with aberrant DNA methylation in human amyotrophic lateral sclerosis. **2021**, 47, 61-72 | 8 |
| 691 | CRISPR Tools for Physiology and Cell State Changes: Potential of Transcriptional Engineering and Epigenome Editing. **2021**, 101, 177-211 | 5 |
| 690 | Adenosine kinase is critical for neointima formation after vascular injury by inducing aberrant DNA hypermethylation. **2021**, 117, 561-575 | 9 |
| 689 | Advances and Opportunities in Epigenetic Chemical Biology. **2021**, 22, 17-42 | 5 |
| 688 | Active turnover of DNA methylation during cell fate decisions. **2021**, 22, 59-66 | 44 |
| 687 | The function and regulation of TET2 in innate immunity and inflammation. **2021**, 12, 165-173 | 11 |
| 686 | Technologies for targeting DNA methylation modifications: Basic mechanism and potential application in cancer. **2021**, 1875, 188454 | 11 |
| 685 | Discovery of an Unnatural DNA Modification Derived from a Natural Secondary Metabolite. **2021**, 28, 97-104.e4 | 3 |
| 684 | DNA methylation methods: Global DNA methylation and methylomic analyses. **2021**, 187, 28-43 | 13 |
| 683 | Predominant DNMT and TET mediate effects of allergen on the human bronchial epithelium in a controlled air pollution exposure study. **2021**, 147, 1671-1682 | 5 |
| 682 | New insight in molecular mechanisms regulating SIRT6 expression in diabetes: Hyperglycaemia effects on SIRT6 DNA methylation. **2021**, 236, 4604-4613 | 2 |
| 681 | TET-mediated 5-methylcytosine oxidation in tRNA promotes translation. **2021**, 296, 100087 | 12 |
| 680 | TET2: A cornerstone in normal and malignant hematopoiesis. **2021**, 112, 31-40 | 8 |

| | | |
|---|---|---|
| 679 | Diagnosis and treatment of lymphomas in the era of epigenetics. **2021**, 48, 100782 | 0 |
| 678 | Interaction Between microRNA and DNA Methylation in Atherosclerosis. **2021**, 40, 101-115 | 7 |
| 677 | Identification of a novel germ cell marker MnTdrd from the oriental river prawn Macrobrachium nipponense. **2021**, 231, 11-19 | 0 |
| 676 | Structural dynamics of double-stranded DNA with epigenome modification. **2021**, 49, 1152-1162 | 2 |
| 675 | 5-Azacytidine Transiently Restores Dysregulated Erythroid Differentiation Gene Expression in TET2-Deficient Erythroleukemia Cells. **2021**, 19, 451-464 | 1 |
| 674 | Functionally distinct roles for TET-oxidized 5-methylcytosine bases in somatic reprogramming to pluripotency. **2021**, 81, 859-869.e8 | 9 |
| 673 | Effects of Ten-Eleven Translocation-2 (Tet2) on myogenic differentiation of chicken myoblasts. **2021**, 252, 110540 | 1 |
| 672 | Identification of DNA (de)methylation-related genes and their transcriptional response to environmental challenges in an invasive model ascidian. **2021**, 768, 145331 | 1 |
| 671 | Epigenetic silencing of TET1 mediated hydroxymethylation of base excision repair pathway during lung carcinogenesis. **2021**, 268, 115860 | 3 |
| 670 | DNA Modifications. **2021**, | |
| 669 | Nucleosomes and Epigenetics from a Chemical Perspective. **2021**, 22, 595-612 | 1 |
| 668 | Arterial Tortuosity Syndrome: An Ascorbate Compartmentalization Disorder?. **2021**, 34, 875-889 | 2 |
| 667 | Purification of TET Proteins. **2021**, 2272, 225-237 | 1 |
| 666 | One-pot intramolecular cyclization of 5-hydroxymethylcytosine for sequencing DNA hydroxymethylation at single-base resolution. **2021**, 146, 820-824 | |
| 665 | DNA repair \| DNA Oxidation. **2021**, 236-243 | |
| 664 | Deciphering the multifaceted roles of TET proteins in T-cell lineage specification and malignant transformation. **2021**, 300, 22-36 | 4 |
| 663 | Histone modifications, DNA methylation, and the epigenetic code of alcohol use disorder. **2021**, 156, 1-62 | 6 |
| 662 | Stem cell epigenetics in medical therapy. **2021**, 873-884 | |

| | | |
|---|---|---|
| 661 | The crosstalk between mA RNA methylation and other epigenetic regulators: a novel perspective in epigenetic remodeling. **2021**, 11, 4549-4566 | 13 |
| 660 | Epigenetics of Aging and Aging-Associated Diseases. **2021**, 22, | 24 |
| 659 | The chromosomal protein SMCHD1 regulates DNA methylation and the 2c-like state of embryonic stem cells by antagonizing TET proteins. **2021**, 7, | 6 |
| 658 | Computational investigations of selected enzymes from two iron and □ketoglutarate-dependent families. **2021**, 23, 22227-22240 | 0 |
| 657 | Direct decarboxylation of ten-eleven translocation-produced 5-carboxylcytosine in mammalian genomes forms a new mechanism for active DNA demethylation. **2021**, 12, 11322-11329 | 8 |
| 656 | Non-coding RNAs as Direct and Indirect Modulators of Epigenetic Regulation. **2021**, 273-283 | |
| 655 | Epigenetic modifications of the renin-angiotensin system in cardiometabolic diseases. **2021**, 135, 127-142 | 4 |
| 654 | Epigenetics concepts: An overview. **2021**, 19-40 | |
| 653 | Harnessing Alternative Substrates to Probe TET Family Enzymes. **2021**, 2272, 265-280 | 1 |
| 652 | Identifying Protein-(Hydroxy)Methylated DNA Interactions Using Quantitative Interaction Proteomics. **2021**, 2272, 209-224 | |
| 651 | TAB-seq and ACE-seq Data Processing for Genome-Wide DNA hydroxymethylation Profiling. **2021**, 2272, 163-178 | 1 |
| 650 | Transcription \| Regulation of Gene Transcription by Hypoxia-Inducible Factor 1□**2021**, 480-489 | 0 |
| 649 | Subtraction-free and bisulfite-free specific sequencing of 5-methylcytosine and its oxidized derivatives at base resolution. **2021**, 12, 618 | 13 |
| 648 | Neuroblastoma and the epigenome. **2021**, 40, 173-189 | 15 |
| 647 | mRNA Expressions of Methylation Related Enzymes and Duration of Thermal Conditioning in Chicks.. **2022**, 59, 90-95 | |
| 646 | P53 and DNA Methylation in the Aging Process. **2021**, 11, 83-95 | 1 |
| 645 | DNA methylation in heart failure. **2021**, 55-75 | |
| 644 | The epigenetic DNA modification 5-carboxylcytosine promotes high levels of cyclobutane pyrimidine dimer formation upon UVB irradiation. **2021**, 2, 59-69 | 2 |

| | | |
|---|---|---|
| 643 | DNA Methylation in T-Cell Acute Lymphoblastic Leukemia: In Search for Clinical and Biological Meaning. **2021**, 22, | 3 |
| 642 | Distinguishing Active Versus Passive DNA Demethylation Using Illumina MethylationEPIC BeadChip Microarrays. **2021**, 2272, 97-140 | |
| 641 | Quantification and mapping of DNA modifications. **2021**, 2, 1096-1114 | 6 |
| 640 | Nondestructive enzymatic deamination enables single-molecule long-read amplicon sequencing for the determination of 5-methylcytosine and 5-hydroxymethylcytosine at single-base resolution. **2021**, | 20 |
| 639 | TET-Mediated Epigenetic Regulation in Immune Cell Development and Disease. **2020**, 8, 623948 | 10 |
| 638 | 5-Methylcytosine and 5-hydroxymethylcytosine in psychiatric epigenetics. **2021**, 275-308 | |
| 637 | Molecular Targeted Therapy in Myelodysplastic Syndromes: New Options for Tailored Treatments. **2021**, 13, | 6 |
| 636 | Epigenetics of T-cell Lymphoma. **2021**, 27-45 | |
| 635 | TET2 is a component of the estrogen receptor complex and controls 5mC to 5hmC conversion at estrogen receptor cis-regulatory regions. **2021**, 34, 108776 | 5 |
| 634 | An all-to-all approach to the identification of sequence-specific readers for epigenetic DNA modifications on cytosine. **2021**, 12, 795 | 9 |
| 633 | Targeting Epigenetic Mechanisms to Treat Alcohol Use Disorders (AUD). **2021**, 27, 3252-3272 | 1 |
| 632 | Novel label-free electrochemical strategy for sensitive determination of ten-eleven translocation protein 1. **2021**, 1146, 140-145 | 2 |
| 631 | Copper Ions Induce DNA Sequence Variation in Zygotic Embryo Culture-Derived Barley Regenerants. **2020**, 11, 614837 | 4 |
| 630 | Metabolic control of DNA methylation in naive pluripotent cells. **2021**, 53, 215-229 | 5 |
| 629 | Iterative epigenomic analyses in the same single cell. **2021**, 31, 1819-1830 | 0 |
| 628 | TET Enzymes and 5-Hydroxymethylcytosine in Neural Progenitor Cell Biology and Neurodevelopment. **2021**, 9, 645335 | 3 |
| 627 | DNA Methyltransferase 1 (DNMT1) Shapes Neuronal Activity of Human iPSC-Derived Glutamatergic Cortical Neurons. **2021**, 22, | 5 |
| 626 | Molecular mechanism for vitamin C-derived C-glyceryl-methylcytosine DNA modification catalyzed by algal TET homologue CMD1. **2021**, 12, 744 | 1 |

| | | |
|---|---|---|
| 625 | Tet2 Inactivation Enhances the Antitumor Activity of Tumor-Infiltrating Lymphocytes. **2021**, 81, 1965-1976 | 8 |
| 624 | Strand-specific single-cell methylomics reveals distinct modes of DNA demethylation dynamics during early mammalian development. **2021**, 12, 1286 | 2 |
| 623 | 5-hydroxymethylcytosine mediated active demethylation is required for neuronal differentiation and function. | 0 |
| 622 | TETology: Epigenetic Mastermind in Action. **2021**, 193, 1701-1726 | 3 |
| 621 | Dietary Alpha-Ketoglutarate Promotes Epithelial Metabolic Transition and Protects against DSS-Induced Colitis. **2021**, 65, e2000936 | 2 |
| 620 | Telomerase Regulation: A Role for Epigenetics. **2021**, 13, | 8 |
| 619 | Cellular response to endogenous DNA damage: DNA base modifications in gene expression regulation. **2021**, 99, 103051 | 5 |
| 618 | Ten-eleven translocation methylcytosine dioxygenase 3-loaded microspheres penetrate neurons in vitro causing active demethylation and neurite outgrowth. **2021**, 15, 463-474 | 0 |
| 617 | Nutrient regulation of the flow of genetic information by O-GlcNAcylation. **2021**, 49, 867-880 | 2 |
| 616 | Catalytic Mechanism of Human Ten-Eleven Translocation-2 (TET2) Enzyme: Effects of Conformational Changes, Electric Field, and Mutations. **2021**, 11, 3877-3890 | 12 |
| 615 | Loss of ten-eleven translocation 2 induces cardiac hypertrophy and fibrosis through modulating ERK signaling pathway. **2021**, 30, 865-879 | 1 |
| 614 | Gut microbiome-mediated epigenetic regulation of brain disorder and application of machine learning for multi-omics data analysis. **2021**, 64, 355-371 | 7 |
| 613 | B1a and B2 cells are characterized by distinct CpG modification states at DNMT3A-maintained enhancers. **2021**, 12, 2208 | 4 |
| 612 | The regulation mechanisms and the Lamarckian inheritance property of DNA methylation in animals. **2021**, 32, 135-152 | 1 |
| 611 | DNA Methylation in Solid Tumors: Functions and Methods of Detection. **2021**, 22, | 6 |
| 610 | Role of Epigenetic Regulation in Plasticity of Tumor Immune Microenvironment. **2021**, 12, 640369 | 12 |
| 609 | The Detection of Cancer Epigenetic Traces in Cell-Free DNA. **2021**, 11, 662094 | 2 |
| 608 | Clonal haematopoiesis of indeterminate potential: intersections between inflammation, vascular disease and heart failure. **2021**, 135, 991-1007 | 1 |

| | | |
|---|---|---|
| 607 | Developmental series of gene expression clarifies maternal mRNA provisioning and maternal-to-zygotic transition in the reef-building coralMontipora capitata. | 1 |
| 606 | Experimental eye research / short communication format characterization of DNA hydroxymethylation in the ocular choroid. **2021**, 205, 108473 | 1 |
| 605 | TET-TDG Active DNA Demethylation at CpG and Non-CpG Sites. **2021**, 433, 166877 | 6 |
| 604 | The language of chromatin modification in human cancers. **2021**, 21, 413-430 | 35 |
| 603 | 5-Hydroxymethyl-, 5-Formyl- and 5-Carboxydeoxycytidines as Oxidative Lesions and Epigenetic Marks. **2021**, 27, 8100-8104 | 2 |
| 602 | miR-646/TET1 mediated demethylation of IRX1 promoter upregulates HIST2H2BE and promotes the progression of invasive ductal carcinoma. **2021**, 113, 1469-1481 | 0 |
| 601 | What can clinical immunology learn from inborn errors of epigenetic regulators?. **2021**, 147, 1602-1618 | 5 |
| 600 | In Response to Abiotic Stress, DNA Methylation Confers EpiGenetic Changes in Plants. **2021**, 10, | 14 |
| 599 | Solvent-Dependent Stabilization of a Charge Transfer State is the Key to Ultrafast Triplet State Formation in an Epigenetic DNA Nucleoside. **2021**, 27, 10932-10940 | 3 |
| 598 | Epigenetic Regulation of Genomic Stability by Vitamin C. **2021**, 12, 675780 | 10 |
| 597 | The C5-substituent effects on the formic acid-assisted tautomerization of protonated cytosine: A lower isomerization barrier and potential biological importance. **2021**, 34, e4220 | |
| 596 | DNA Methylation Patterning and the Regulation of Beta Cell Homeostasis. **2021**, 12, 651258 | 7 |
| 595 | Pearl Necklacelike Strategy Enables Quantification of Global 5-Hydroxymethylcytosine and 5-Formylcytosine by Inductively Coupled Plasma-Atomic Emission Spectrometry. **2021**, 93, 7787-7791 | 3 |
| 594 | An Assessment on Ethanol-Blended Gasoline/Diesel Fuels on Cancer Risk and Mortality. **2021**, 18, | 1 |
| 593 | Navigating the DNA methylation landscape of cancer. **2021**, 37, 1012-1027 | 38 |
| 592 | Sex dependent alteration of epigenetic marks after chronic morphine treatment in mice organs. **2021**, 152, 112200 | |
| 591 | Phage-encoded ten-eleven translocation dioxygenase (TET) is active in C5-cytosine hypermodification in DNA. **2021**, 118, | 1 |
| 590 | Vitamin C Inhibits the Metabolic Changes Induced by Tet1 Insufficiency Under High Fat Diet Stress. **2021**, 65, e2100417 | 1 |

| | | |
|---|---|---|
| 589 | Epigenetic dysregulation in myeloid malignancies. **2021**, | 2 |
| 588 | Transcriptomic and Epigenomic Landscape in Rett Syndrome. **2021**, 11, | 1 |
| 587 | Roles of TET and TDG in DNA demethylation in proliferating and non-proliferating immune cells. **2021**, 22, 186 | 11 |
| 586 | Deformylierung von 5-Formylcytidin in unterschiedlichen Zelltypen. **2021**, 133, 17005-17010 | 2 |
| 585 | Sequence determinants, function, and evolution of CpG islands. **2021**, 49, 1109-1119 | 4 |
| 584 | Cytosine base modifications regulate DNA duplex stability and metabolism. **2021**, | 4 |
| 583 | Sperm Functional Genome Associated With Bull Fertility. **2021**, 8, 610888 | 5 |
| 582 | Epigenetic Editing in Prostate Cancer: Challenges and Opportunities. **2021**, 1-25 | |
| 581 | Molecular Epigenetics: Chemical Biology Tools Come of Age. **2021**, 90, 287-320 | 2 |
| 580 | DNA repair in neurons and its possible link to the epigenetic machinery at enhancers. **2021**, 13, 913-917 | 1 |
| 579 | Deformylation of 5-Formylcytidine in Different Cell Types. **2021**, 60, 16869-16873 | 3 |
| 578 | Exploiting DNA Endonucleases to Advance Mechanisms of DNA Repair. **2021**, 10, | 1 |
| 577 | Epigenetically modified nucleobases (5hmc, 5fc, and 5caC) interaction with boron and nitrogen doped porous graphene (B/N-pGr) as promising materials for biosensing application: A density functional theory calculations. **2021**, 197, 111133 | 1 |
| 576 | Translesion Synthesis Past 5-Formylcytosine-Mediated DNA-Peptide Cross-Links by hPol□Is Dependent on the Local DNA Sequence. **2021**, 60, 1797-1807 | 4 |
| 575 | The Road to Low-Dose Aspirin Therapy for the Prevention of Preeclampsia Began with the Placenta. **2021**, 22, | 6 |
| 574 | Ten-eleven translocation 2 modulates allergic inflammation by 5-hydroxymethylcytosine remodeling of immunologic pathways. **2021**, 30, 1985-1995 | 1 |
| 573 | Role of Tet2 in Regulating Adaptive and Innate Immunity. **2021**, 9, 665897 | 4 |
| 572 | Mechanistic Study on Oxidative DNA Damage and Modifications by Haloquinoid Carcinogenic Intermediates and Disinfection Byproducts. **2021**, 34, 1701-1712 | 1 |

| | | |
|---|---|---|
| 571 | The Roles of DNA Demethylases in Triple-Negative Breast Cancer. **2021**, 14, | 0 |
| 570 | Cancer cell metabolism connects epigenetic modifications to transcriptional regulation. **2021**, | 6 |
| 569 | Quantitative Assessment of the Oxidation Products of 5-Methylcytosine in DNA by Liquid Chromatography-Tandem Mass Spectrometry. **2022**, 3-11 | |
| 568 | Epigenetic inheritance of polycystic ovary syndrome - challenges and opportunities for treatment. **2021**, 17, 521-533 | 13 |
| 567 | Tissue-specific 5-hydroxymethylcytosine landscape of the human genome. **2021**, 12, 4249 | 5 |
| 566 | Solid-state nanopore analysis of human genomic DNA shows unaltered global 5-hydroxymethylcytosine content associated with early-stage breast cancer. **2021**, 35, 102407 | 1 |
| 565 | Epigenetic Mechanisms Mediate Nicotine-Induced Reward and Behaviour in Zebrafish. **2021**, | 0 |
| 564 | DNA Methylation and Intra-Clonal Heterogeneity: The Chronic Myeloid Leukemia Model. **2021**, 13, | 4 |
| 563 | Catalytic Space Engineering as a Strategy to Activate C-H Oxidation on 5-Methylcytosine in Mammalian Genome. **2021**, 143, 11891-11896 | 2 |
| 562 | Quantification of Site-Specific 5-Formylcytosine by Integrating Peptide Nucleic Acid-Clamped Ligation with Loop-Mediated Isothermal Amplification. **2022**, 77-91 | |
| 561 | Decoding DNA methylation in epigenetics of multiple myeloma. **2021**, 51, 100872 | 3 |
| 560 | Beyond Restriction Modification: Epigenomic Roles of DNA Methylation in Prokaryotes. **2021**, 75, 129-149 | 7 |
| 559 | Whole-genome analysis of TET dioxygenase function in regulatory T cells. **2021**, 22, e52716 | 8 |
| 558 | Comprehensive Evaluation of Differential Methylation Analysis Methods for Bisulfite Sequencing Data. **2021**, 18, | 0 |
| 557 | Active genic machinery for epigenetic RNA modifications in bees. **2021**, 30, 566-579 | 3 |
| 556 | Detection of 5-Formyluracil and 5-Formylcytosine in DNA by Fluorescence Labeling. **2022**, 155-162 | |
| 555 | Understanding the Therapeutic Potential of Ascorbic Acid in the Battle to Overcome Cancer. **2021**, 11, | 4 |
| 554 | Rhythmic Regulation of DNA Methylation Factors and Core-Clock Genes in Brain Structures Activated by Cocaine or Sucrose: Potential Role of Chromatin Remodeling. **2021**, 12, | 0 |

| | | |
|---|---|---|
| 553 | Regulation of the epigenetic landscape by immune cell oxidants. **2021**, 170, 131-149 | 2 |
| 552 | Ascorbic acid in epigenetic reprogramming. **2021**, | 2 |
| 551 | Contribution of Epigenetic Mechanisms in the Regulation of Environmentally-Induced Polyphenism in Insects. **2021**, 12, | 3 |
| 550 | Epigenetic "Drivers" of Cancer. **2021**, 433, 167094 | 3 |
| 549 | Global DNA Methylation Analysis Using Methylcytosine Dioxygenase. **2022**, 93-102 | |
| 548 | Analysis of 5-Methylcytosine and 5-Hydroxymethylcytosine in Genomic DNA by Capillary Electrophoresis-Mass Spectrometry. **2022**, 23-30 | |
| 547 | A postreplicative C5-cytosine hypermodification triggered by bacteriophage methyltransferase and hydroxylase. **2021**, 118, | |
| 546 | Roles and Regulations of TET Enzymes in Solid Tumors. **2021**, 7, 635-646 | 9 |
| 545 | GADD45A is a protective modifier of neurogenic skeletal muscle atrophy. **2021**, 6, | 1 |
| 544 | Epigenomic regulation by labile iron. **2021**, 170, 44-49 | 4 |
| 543 | Comparative Nucleosomal Reactivity of 5-Formyl-Uridine and 5-Formyl-Cytidine. **2021**, 27, 12747-12752 | 1 |
| 542 | Mechanisms of Binding Specificity among bHLH Transcription Factors. **2021**, 22, | 6 |
| 541 | Epigenetic Regulation of Cardiomyocyte Differentiation from Embryonic and Induced Pluripotent Stem Cells. **2021**, 22, | 0 |
| 540 | DNA methylation detection technology and plasma-based methylation biomarkers in screening of gastrointestinal carcinoma. **2021**, 13, 1327-1339 | 0 |
| 539 | Identification and evaluation of fructose-bisphosphate aldolase B as a potential diagnostic biomarker in choledochal cysts patients: a quantitative proteomic analysis. **2021**, 10, 2083-2094 | 0 |
| 538 | Synthetic lethality and synergetic effect: the effective strategies for therapy of IDH-mutated cancers. **2021**, 40, 263 | 3 |
| 537 | DNA methylation and noncoding RNA in OA: Recent findings and methodological advances.. **2021**, 3, | 1 |
| 536 | Role of Mitochondria in Neurodegenerative Diseases: From an Epigenetic Perspective. **2021**, 9, 688789 | 2 |

| | | |
|---|---|---|
| 535 | WS2/Bi/BiOBr Nanostructures for Photoelectrochemical Sensing of 5-Formyluracil-2?-deoxyuridine-5?-triphosphate through Hemin/G-Quadruplex Double Signal Amplification. **2021**, 4, 8998-9007 | 2 |
| 534 | Biomimetic Iron Complex Achieves TET Enzyme Reactivity**. **2021**, 133, 21627-21633 | 0 |
| 533 | Molecular Pathogenesis and Peripheral Monitoring of Adult Fragile X-Associated Syndromes. **2021**, 22, | 2 |
| 532 | TET2 as a tumor suppressor and therapeutic target in T-cell acute lymphoblastic leukemia. **2021**, 118, | 1 |
| 531 | Epigenetics in Male Infertility. | |
| 530 | Emerging Role of Acquired Mutations and Clonal Hematopoiesis in Atherosclerosis - Beyond Conventional Cardiovascular Risk Factors. **2021**, | 2 |
| 529 | Mouse Models of Germinal Center Derived B-Cell Lymphomas. **2021**, 12, 710711 | 1 |
| 528 | Chromatin Alterations in Neurological Disorders and Strategies of (Epi)Genome Rescue. **2021**, 14, | 0 |
| 527 | Enzymatic approaches for profiling cytosine methylation and hydroxymethylation. **2021**, 57, 101314 | 1 |
| 526 | Biomimetic Iron Complex Achieves TET Enzyme Reactivity*. **2021**, 60, 21457-21463 | 3 |
| 525 | D-2-Hydroxyglutarate in Glioma Biology. **2021**, 10, | 4 |
| 524 | Hepatic global DNA Hypomethylation Phenotype in Rainbow Trout Fed Diets Varying in Carbohydrate to Protein Ratio. **2021**, | 0 |
| 523 | Genome-Wide DNA Methylation and Hydroxymethylation Changes Revealed Epigenetic Regulation of Neuromodulation and Myelination in Yak Hypothalamus. **2021**, 12, 592135 | |
| 522 | DNA 5-hydroxymethylcytosine in pediatric central nervous system tumors may impact tumor classification and is a positive prognostic marker. **2021**, 13, 176 | 0 |
| 521 | Assay for TET1 activity and its inhibitors screening with signal amplification by both nanoparticles and Ru(III) redox recycling. **2021**, 203, 114228 | 2 |
| 520 | Screening bioactive food compounds in honey bees suggests curcumin blocks alcohol-induced damage to longevity and DNA methylation. **2021**, 11, 19156 | 2 |
| 519 | TET-Like Oxidation in 5-Methylcytosine and Derivatives: A Computational and Experimental Study. **2021**, 22, 3333-3340 | 0 |
| 518 | An Updated Model for the Epigenetic Regulation of Effector and Memory CD8 T Cell Differentiation. **2021**, 207, 1497-1505 | 1 |

| | | |
|---|---|---|
| 517 | Demethylation of Non-CpG Sites in DNA Is Initiated by TET2 5-Methylcytosine Dioxygenase. **2021**, 1, 26-36 | 1 |
| 516 | Epigenetic regulation in Huntington's disease. **2021**, 148, 105074 | 2 |
| 515 | Rapid and Label-Free Detection of 5-Hydroxymethylcytosine in Genomic DNA Using an Au/ZnO Nanorods Hybrid Nanostructure-Based Electrochemical Sensor. **2021**, 10, e2101193 | 3 |
| 514 | Molecular Targeted Therapy and Immunotherapy for Myelodysplastic Syndrome. **2021**, 22, | 1 |
| 513 | Interaction of Thymine DNA Glycosylase with Oxidised 5-Methyl-cytosines in Their Amino- and Imino-Forms. **2021**, 26, | 0 |
| 512 | DNA Demethylation in the Processes of Repair and Epigenetic Regulation Performed by 2-Ketoglutarate-Dependent DNA Dioxygenases. **2021**, 22, | 1 |
| 511 | Comparative Metabolomics Analyses of Plantaricin Q7 Production by Q7. **2021**, 69, 10741-10748 | 1 |
| 510 | High throughput and low bias DNA methylation and hydroxymethylation analysis by direct injection mass spectrometry. **2021**, 1180, 338880 | 4 |
| 509 | Epigenetic underpinnings of freeze avoidance in the goldenrod gall moth, Epiblema scudderiana. **2021**, 134, 104298 | 0 |
| 508 | Metabolic enzymes function as epigenetic modulators: A Trojan Horse for chromatin regulation and gene expression. **2021**, 173, 105834 | 0 |
| 507 | Apurinic/Apyrimidinic Endonuclease 2 (APE2): An ancillary enzyme for contextual base excision repair mechanisms to preserve genome stability. **2021**, 190, 70-90 | 3 |
| 506 | Enhanced photoactivity of ZnPc@WS heterojunction by CuBiO and its application for photoelectrochemical detection of 5-formyl-2'-deoxycytidine. **2021**, 234, 122697 | 1 |
| 505 | The role of TET proteins in stress-induced neuroepigenetic and behavioural adaptations. **2021**, 15, 100352 | 0 |
| 504 | Epigenetic programming of the immune responses in cancer. **2022**, 197-235 | 0 |
| 503 | The epigenetic regulation of the immune system during pregnancy. **2021**, 365-385 | 1 |
| 502 | Oxidative intermediates captured during demethylation of DNA and RNA. **2021**, 233, 02036 | |
| 501 | Stress-Mediated Regulation of the DNA Methylome. **2021**, 37-47 | |
| 500 | Epigenetics in toxicology and drug development. **2021**, 529-558 | |

| | | |
|---|---|---|
| 499 | Generation and Molecular Characterization of Transient tet1/2/3 Zebrafish Knockouts. **2021**, 2272, 281-318 | 1 |
| 498 | Base excision repair and nucleotide excision repair. **2021**, 293-322 | 0 |
| 497 | Reduced Bisulfite Sequencing: Quantitative Base-Resolution Sequencing of 5-Formylcytosine. **2021**, 2272, 3-12 | |
| 496 | Tricarboxylic Acid (TCA) Cycle Intermediates: Regulators of Immune Responses. **2021**, 11, | 10 |
| 495 | Epitranscriptomic Modifications and How to Find Them. **2021**, 165-196 | 1 |
| 494 | The Complexity of TET2 Functions in Pluripotency and Development. **2020**, 8, 630754 | 1 |
| 493 | TET3 dioxygenase modulates gene conversion at the avian immunoglobulin variable region via demethylation of non-CpG sites in pseudogene templates. **2021**, 26, 121-135 | 1 |
| 492 | Intergenerational transmission of stress-related epigenetic regulation. **2021**, 119-141 | 0 |
| 491 | Other omics approaches to the study of rare diseases. **2021**, 229-262 | |
| 490 | Molecular Genetics of Myelodysplastic Syndromes. | 1 |
| 489 | Epigenetic Regulation of Oocyte Function and Developmental Potential. **2013**, 151-167 | 1 |
| 488 | Modified Forms of Cytosine in Eukaryotes: DNA (De)methylation and Beyond. **2021**, 2198, 3-13 | 1 |
| 487 | Evidence for Noncytosine Epigenetic DNA Modifications in Multicellular Eukaryotes: An Overview. **2021**, 2198, 15-25 | 3 |
| 486 | High-Resolution Analysis of 5-Hydroxymethylcytosine by TET-Assisted Bisulfite Sequencing. **2021**, 2198, 321-331 | 3 |
| 485 | Bisulfite-Free Sequencing of 5-Hydroxymethylcytosine with APOBEC-Coupled Epigenetic Sequencing (ACE-Seq). **2021**, 2198, 349-367 | 3 |
| 484 | Mapping DNA Methylation in Mammals: The State of the Art. **2021**, 2198, 37-50 | 2 |
| 483 | Epigenetic Changes in Virus-Associated Neoplasms. **2012**, 179-225 | 11 |
| 482 | Gadd45 proteins: key players of repair-mediated DNA demethylation. **2013**, 793, 35-50 | 41 |

| | | |
|---|---|---|
| 481 | Regulation of 5-Hydroxymethylcytosine Distribution by the TET Enzymes. **2019**, 229-263 | 2 |
| 480 | DNA Methylation in Neuronal Development and Disease. **2019**, 103-140 | 1 |
| 479 | A Hybrid HMM Approach for the Dynamics of DNA Methylation. **2019**, 117-131 | 3 |
| 478 | Sex Differences in Epigenetic Programming of Brain Differentiation: Implications for Mental Health and Disease. **2013**, 37-54 | 1 |
| 477 | Recent Results on the Development of Fetal Immune System: Self, Epigenetic Regulation, Fetal Immune Responses. **2012**, 51-82 | 2 |
| 476 | Chromatin Organization and the Mammalian Nucleolus. **2013**, 119-148 | 5 |
| 475 | Methylation in Colorectal Cancer. **2015**, 373-455 | 1 |
| 474 | Mapping the epigenetic modifications of DNA and RNA. **2020**, 11, 792-808 | 55 |
| 473 | 5-Methylpyrimidines and Their Modifications in DNA. **2020**, 465-488 | 2 |
| 472 | Environmental alterations of epigenetics prior to the birth. **2014**, 115, 1-49 | 29 |
| 471 | Introduction of Epigenetic Targets in Drug Discovery and Current Status of Epi-Drugs and Epi-Probes. **2016**, 1-20 | 2 |
| 470 | Epigenetics in formation, function, and failure of the endocrine pancreas. **2017**, 6, 1066-1076 | 23 |
| 469 | Weakened N3 Hydrogen Bonding by 5-Formylcytosine and 5-Carboxylcytosine Reduces Their Base-Pairing Stability. **2016**, 11, 470-7 | 45 |
| 468 | 5-Hydroxymethylcytosine signatures in circulating cell-free DNA as diagnostic biomarkers for human cancers. **2017**, 27, 1243-1257 | 154 |
| 467 | CHAPTER 3:Mechanisms of 2-Oxoglutarate-Dependent Oxygenases: The Hydroxylation Paradigm and Beyond. **2015**, 95-122 | 58 |
| 466 | CHAPTER 9:RNA Demethylation by FTO and ALKBH5. **2015**, 263-274 | 2 |
| 465 | CHAPTER 4:Targeting DNA Methylation. **2015**, 68-95 | 1 |
| 464 | Making it or breaking it: DNA methylation and genome integrity. **2020**, 64, 687-703 | 9 |

| | | |
|---|---|---|
| 463 | The Role of Epigenetics in the Regulation of Hemostatic Balance. **2021**, 47, 53-62 | 3 |
| 462 | Mechanisms of mutagenesis induced by DNA lesions: multiple factors affect mutations in translesion DNA synthesis. **2020**, 55, 219-251 | 4 |
| 461 | Disease relevant modifications of the methylome and transcriptome by particulate matter (PM) from biomass combustion. **2017**, 12, 779-792 | 35 |
| 460 | Modeling methyl-sensitive transcription factor motifs with an expanded epigenetic alphabet. | 9 |
| 459 | cAMP Signaling Regulates DNA Demethylation by Augmenting the Intracellular Labile Ferrous Iron Pool. | 1 |
| 458 | DNA 5-Hydroxymethylcytosines from Cell-free Circulating DNA as Diagnostic Biomarkers for Human Cancers. | 1 |
| 457 | A non-catalytic role of TET3 promotes open chromatin and enhances global transcription. | 1 |
| 456 | Non-destructive enzymatic deamination enables single molecule long read sequencing for the determination of 5-methylcytosine and 5-hydroxymethylcytosine at single base resolution. | 4 |
| 455 | TET1 dioxygenase is required for FOXA2-associated chromatin remodeling in pancreatic beta-cell differentiation. | 1 |
| 454 | OGT binds a conserved C-terminal domain of TET1 to regulate TET1 activity and function in development. | 1 |
| 453 | Recent evolution of a TET-controlled and DPPA3/STELLA-driven pathway of passive demethylation in mammals. | 3 |
| 452 | Strand-specific single-cell methylomics reveals distinct modes of DNA demethylation dynamics during early mammalian development. | 2 |
| 451 | Tet2-mediated clonal hematopoiesis in nonconditioned mice accelerates age-associated cardiac dysfunction. **2020**, 5, | 43 |
| 450 | Loss of epigenetic regulator TET2 and oncogenic KIT regulate myeloid cell transformation via PI3K pathway. **2018**, 3, | 11 |
| 449 | Epigenetic reprogramming of immune cells in injury, repair, and resolution. **2019**, 129, 2994-3005 | 26 |
| 448 | Tumor suppressor TET2 promotes cancer immunity and immunotherapy efficacy. **2019**, 129, 4316-4331 | 66 |
| 447 | Isocitrate dehydrogenase mutations in leukemia. **2013**, 123, 3672-7 | 51 |
| 446 | Mutations in 5-methylcytosine oxidase TET2 and RhoA cooperatively disrupt T cell homeostasis. **2017**, 127, 2998-3012 | 54 |

| | | |
|---|---|---|
| 445 | Interpreting new molecular genetics in myelodysplastic syndromes. **2012**, 2012, 56-64 | 22 |
| 444 | Characterization of global 5-hydroxymethylcytosine in pediatric posterior fossa ependymoma. **2020**, 12, 19 | 4 |
| 443 | Chromatin dynamics at the maternal to zygotic transition: recent advances from the zebrafish model. **2020**, 9, | 3 |
| 442 | Theoretical modelling of epigenetically modified DNA sequences. **2015**, 4, 52 | 8 |
| 441 | 5-Methylcytosine and 5-hydroxymethylcytosine spatiotemporal profiles in the mouse zygote. **2012**, 7, e38156 | 56 |
| 440 | Mutagenic and cytotoxic properties of oxidation products of 5-methylcytosine revealed by next-generation sequencing. **2013**, 8, e72993 | 23 |
| 439 | Epigenetics and cell death: DNA hypermethylation in programmed retinal cell death. **2013**, 8, e79140 | 21 |
| 438 | Genome-Wide Mapping of 5mC and 5hmC Identified Differentially Modified Genomic Regions in Late-Onset Severe Preeclampsia: A Pilot Study. **2015**, 10, e0134119 | 21 |
| 437 | DNA Methylation Patterns in the Hypothalamus of Female Pubertal Goats. **2016**, 11, e0165327 | 22 |
| 436 | Analysis of global DNA methylation changes in primary human fibroblasts in the early phase following X-ray irradiation. **2017**, 12, e0177442 | 18 |
| 435 | Increased lipid availability for three days reduces whole body glucose uptake, impairs muscle mitochondrial function and initiates opposing effects on PGC-1 promoter methylation in healthy subjects. **2017**, 12, e0188208 | 5 |
| 434 | Tet protein function during Drosophila development. **2018**, 13, e0190367 | 14 |
| 433 | The role of epigenetics in hypothalamic energy balance control: implications for obesity. **2019**, 3, 208-220 | 9 |
| 432 | miR-660-5p promotes breast cancer progression through down-regulating TET2 and activating PI3K/AKT/mTOR signaling. **2020**, 53, e9740 | 7 |
| 431 | Analysis of the machinery and intermediates of the 5hmC-mediated DNA demethylation pathway in aging on samples from the MARK-AGE Study. **2016**, 8, 1896-1922 | 31 |
| 430 | Expression and prognosis analysis of family in acute myeloid leukemia. **2020**, 12, 5031-5047 | 8 |
| 429 | TET1-mediated DNA hypomethylation regulates the expression of MUC4 in lung cancer. **2017**, 8, 517-527 | 11 |
| 428 | The emerging insights into catalytic or non-catalytic roles of TET proteins in tumors and neural development. **2016**, 7, 64512-64525 | 21 |

| | | |
|---|---|---|
| 427 | TET2 functions as a resistance factor against DNA methylation acquisition during Epstein-Barr virus infection. **2016**, 7, 81512-81526 | 38 |
| 426 | Decreased 5-hydroxymethylcytosine levels correlate with cancer progression and poor survival: a systematic review and meta-analysis. **2017**, 8, 1944-1952 | 24 |
| 425 | 5-Hydroxymethylcytosine correlates with epigenetic regulatory mutations, but may not have prognostic value in predicting survival in normal karyotype acute myeloid leukemia. **2017**, 8, 8305-8314 | 3 |
| 424 | Proteome alterations associated with transformation of multiple myeloma to secondary plasma cell leukemia. **2017**, 8, 19427-19442 | 4 |
| 423 | Genome-wide 5-hydroxymethylcytosine patterns in human spermatogenesis are associated with semen quality. **2017**, 8, 88294-88307 | 18 |
| 422 | Accurate quantification of 5-Methylcytosine, 5-Hydroxymethylcytosine, 5-Formylcytosine, and 5-Carboxylcytosine in genomic DNA from breast cancer by chemical derivatization coupled with ultra performance liquid chromatography- electrospray quadrupole time of flight mass spectrometry analysis. **2017**, 8, 91248-91257 | 16 |
| 421 | Association of TET3 epigenetic inactivation with head and neck cancer. **2018**, 9, 24480-24493 | 22 |
| 420 | Epigenetic dysregulation of in human glioblastoma. **2018**, 9, 25922-25934 | 17 |
| 419 | Tumor circulating DNA profiling in xenografted mice exposed to intermittent hypoxia. **2015**, 6, 556-69 | 25 |
| 418 | Inhibition of mutant IDH1 decreases D-2-HG levels without affecting tumorigenic properties of chondrosarcoma cell lines. **2015**, 6, 12505-19 | 65 |
| 417 | DNA methylation and cognitive aging. **2015**, 6, 13922-32 | 42 |
| 416 | 5mC-hydroxylase activity is influenced by the PARylation of TET1 enzyme. **2015**, 6, 24333-47 | 36 |
| 415 | Hormone stimulation of androgen receptor mediates dynamic changes in DNA methylation patterns at regulatory elements. **2015**, 6, 42575-89 | 26 |
| 414 | Dynamic reprogramming of DNA methylation in SETD2-deregulated renal cell carcinoma. **2016**, 7, 1927-46 | 36 |
| 413 | Inhibitors of DNA Methylation and Histone Deacetylation as Epigenetically Active Drugs for Anticancer Therapy. **2019**, 25, 635-641 | 7 |
| 412 | Targeting IDH Mutations in AML: Wielding the Double-edged Sword of Differentiation. **2020**, 20, 490-500 | 6 |
| 411 | The Anticancer Role of Omega-3 Polyunsaturated Fatty Acids was Closely Associated with the Increase in Genomic DNA Hydroxymethylation. **2019**, 19, 330-336 | 10 |
| 410 | Dynamic changes in DNA demethylation in the tree shrew () brain during postnatal development and aging. **2017**, 38, 96-102 | 10 |

| | | |
|---|---|---|
| 409 | Endogenous epitope-tagging of , and identifies TET2 as a naïve pluripotency marker. **2019**, 2, | 6 |
| 408 | Role of DNA methylation and the DNA methyltransferases in learning and memory. **2014**, 16, 359-71 | 50 |
| 407 | The epigenetics of perinatal stress?. **2019**, 21, 369-378 | 20 |
| 406 | Next-Generation Sequencing Approaches in Cancer: Where Have They Brought Us and Where Will They Take Us?. **2015**, 7, 1925-58 | 40 |
| 405 | Running to Stand Still: Naive CD8 T Cells Actively Maintain a Program of Quiescence. **2020**, 21, | 4 |
| 404 | Alterations in the Genomic Distribution of 5hmC in In Vivo Aged Human Skin Fibroblasts. **2020**, 22, | 4 |
| 403 | EPEGENTIC TOXICOLOGY: PERSPECTIVES OF THE DEVELOPMENT. **2018**, 2-7 | 1 |
| 402 | Characterization of DNA hydroxymethylation in the hypothalamus of elderly mice with post-operative cognitive dysfunction. **2019**, 18, 4002-4010 | 3 |
| 401 | TET2 is involved in DNA hydroxymethylation, cell proliferation and inflammatory response in keratinocytes. **2020**, 21, 1941-1949 | 5 |
| 400 | Roles of ten-eleven translocation family proteins and their O-linked N-acetylglucosaminylated forms in cancer development. **2021**, 21, 1 | 11 |
| 399 | Prostate cancer epigenetics and its clinical implications. **2016**, 18, 549-58 | 23 |
| 398 | Expression of the C-Terminal Domain of Mammalian <i>TET</i>3 DNA Dioxygenase in <i>Arabidopsis thaliana</i> Induces Heritable Methylation Changes at <i>rDNA</i> Loci. **2016**, 07, 243-250 | 10 |
| 397 | A conformational B-Z DNA study monitored with phosphatemethylated DNA as a model for epigenetic dynamics focused on 5-(hydroxy)methylcytosine. **2013**, 04, 37-46 | 6 |
| 396 | Common stemness regulators of embryonic and cancer stem cells. **2015**, 7, 1150-84 | 144 |
| 395 | Enzymatic DNA oxidation: mechanisms and biological significance. **2014**, 47, 609-18 | 19 |
| 394 | A concise review of human brain methylome during aging and neurodegenerative diseases. **2019**, 52, 577-588 | 15 |
| 393 | Tet2 and Tet3 cooperate with B-lineage transcription factors to regulate DNA modification and chromatin accessibility. **2016**, 5, | 88 |
| 392 | DNA methylation directs genomic localization of Mbd2 and Mbd3 in embryonic stem cells. **2016**, 5, | 15 |

| | | |
|---|---|---|
| 391 | cAMP signaling regulates DNA hydroxymethylation by augmenting the intracellular labile ferrous iron pool. **2017**, 6, | 22 |
| 390 | OGT binds a conserved C-terminal domain of TET1 to regulate TET1 activity and function in development. **2018**, 7, | 27 |
| 389 | NEIL1 and NEIL2 DNA glycosylases protect neural crest development against mitochondrial oxidative stress. **2019**, 8, | 14 |
| 388 | Proteins in DNA methylation and their role in neural stem cell proliferation and differentiation. **2021**, 10, 7 | 2 |
| 387 | Advances in the DNA methylation hydroxylase TET1. **2021**, 9, 76 | 1 |
| 386 | Genome-Wide Analysis of Cadmium-Induced, Germline Mutations in a Long-Term Mutation-Accumulation Experiment. **2021**, 129, 107003 | 2 |
| 385 | Regulation of 5-Hydroxymethylcytosine by TET2 Contributes to Squamous Cell Carcinoma Tumorigenesis. **2021**, | 1 |
| 384 | COVID-19 Is a Multi-Organ Aggressor: Epigenetic and Clinical Marks. **2021**, 12, 752380 | 5 |
| 383 | Site-Specific 5-Formyl Cytosine Mediated DNA-Histone Cross-Links: Synthesis and Polymerase Bypass by Human DNA Polymerase □ **2021**, 133, 26693 | 1 |
| 382 | Direct and Base Excision Repair-Mediated Regulation of a GC-Rich -Element in Response to 5-Formylcytosine and 5-Carboxycytosine. **2021**, 22, | |
| 381 | Site-Specific 5-Formyl Cytosine Mediated DNA-Histone Cross-Links: Synthesis and Polymerase Bypass by Human DNA Polymerase □ **2021**, 60, 26489-26494 | 0 |
| 380 | One Omics Approach Does Not Rule Them All: The Metabolome and the Epigenome Join Forces in Haematological Malignancies.. **2021**, 5, | |
| 379 | PROSER1 mediates TET2 O-GlcNAcylation to regulate DNA demethylation on UTX-dependent enhancers and CpG islands. **2022**, 5, | 1 |
| 378 | [Progress of research on 5-hydroxymethylcytosine]. **2012**, 34, 509-18 | |
| 377 | Epigenetic Reprogramming in the Mammalian Germline. **2013**, 3-34 | |
| 376 | Establishment of Tissue-Specific Epigenetic States During Development. **2013**, 35-62 | |
| 375 | Mechanisms of Somatic Cell Reprogramming. **2013**, 301-316 | |
| 374 | Epigenomic and Noncoding RNA Regulation in Addictive Processes. **2013**, 115-165 | |

373 Oxidized form of 5-methylcytosine - 5-hydroxymethylcytosine: a new insight into the biological significance in the mammalian genome. **2014**, 12, 3

372 Epigenetic Regulation in Autism. **2015**, 67-92

371 Is Environmental Epigenetics Relevant to Endocrine Disease?. **2015**, 55-74

370 Epigenetics Advances in the Nervous System. **2015**, 02, 1-9

369 Myelodysplastic syndromes. 126-152

368 Epigenetic regulation of hepatic stellate cells and liver fibrosis. 421-434

367 Oxidative Stress and Cancer Epigenomics. **2016**, 223-243

366 Crosstalk Between DNA Methylation and´Chromatin Structure. **2016**, 257-270

365 De Novo Methylation in Cancer. 1-7 1

364 Synthesis and Application of Cell-Permeable Metabolites for Modulating Chromatin Modifications Regulated by Ketoglutarate-Dependent Enzymes. **2017**, 63-79

363 The evolution of ideas on the biological role of 5-methylcytosine oxidative derivatives in the mammalian genome. **2016**, 14, 14

362 Epigenetic Regulation of Myeloid Cells. 571-590 1

361 Rewriting the Script: The Story of Vitamin C and the Epigenome. **2017**, 1-21

360 PARylation, DNA (De)methylation, and Diabetes. **2017**, 1-20

359 Epigenetic Contribution to Sex Differences in Brain and Behavior. **2017**, 49-62

358 3 Genetic and Epigenetic Considerations in iPSC Technology. **2017**, 51-86

357 Current status and prospects of epigenetic information in sexual reproductive processes of plants. **2017**, 44, 19-26

356 Cytogenetic and Molecular Genetic Prognostic Factors of Acute Myeloid Leukemia. **2017**, 10, 227-234

| | | |
|---|---|---|
| 355 | OGT binds a conserved C-terminal domain of TET1 to regulate TET1 activity and function in development. | 1 |
| 354 | Overview of Next-Generation Sequencing Technologies and Its Application in Chemical Biology. **2018**, 1-41 | |
| 353 | An epigenetic mechanism for cavefish eye degeneration. | 0 |
| 352 | PARylation, DNA (De)methylation, and Diabetes. **2018**, 1-20 | |
| 351 | Distinct and stage-specific contributions of TET1 and TET2 to stepwise cytosine oxidation in the transition from naive to primed pluripotency. | 0 |
| 350 | Uncoupling DNA- and RNA-directed DNA methylation at Rasgrf1. | |
| 349 | Bisulfite-free, Base-resolution, and Quantitative Sequencing of Cytosine Modifications. | 1 |
| 348 | Integrative analysis of 5-methyl- and 5-hydroxymethylcytosine indicates a role for 5-hydroxymethylcytosine as a repressive epigenetic mark. | |
| 347 | Genome-wide abundance of 5-hydroxymethylcytosine in breast tissue reveals unique function in dynamic gene regulation and carcinogenesis. | 0 |
| 346 | Hydroxymethylated-P16 Allele Is Transcription-Inactive. | |
| 345 | TET-catalyzed 5-carboxylcytosine promotes CTCF binding to suboptimal sequences genome-wide. | 0 |
| 344 | WDR76 promotes MLL-rearranged leukemia via selective recognition of 5-hydroxymethylcytosine in DNA. | |
| 343 | Locus-Specific DNA Methylation Assays to Study Glutamate Receptor Regulation. **2019**, 1941, 167-188 | 1 |
| 342 | Genomic Applications and Insights in Unravelling Cancer Signalling Pathways. **2019**, 471-511 | |
| 341 | The DNA Methylation Machinery. **2019**, 47-64 | |
| 340 | Temporal Dynamics of Tet1 and Oct4 Gene Activation Resolve Distinct Stages of Global DNA Demethylation and Transcriptomic Changes in the Final Phases of Induced Pluripotency. | |
| 339 | Establishment, Erasure and Synthetic Reprogramming of DNA Methylation in Mammalian Cells. **2019**, 1-26 | |
| 338 | Aberrant Epigenomic Regulatory Networks in Multiple Myeloma and Strategies for Their Targeted Reversal. **2019**, 543-572 | |

| | | |
|---|---|---|
| 337 | Loss of TET proteins in regulatory T cells unleashes effector function. | |
| 336 | Temporal resolution of global gene expression and DNA methylation changes in the final phases of reprogramming towards induced pluripotency. | |
| 335 | Procaine and S-adenosyl-L-homocysteine (SAH) affect the expression of genes related to the epigenetic machinery and change the DNA methylation status ofin vitrocultured bovine skin fibroblasts. | |
| 334 | Reconciling Base-Pair Resolution 5-methylcytosine and 5-hydroxymethylcytosine Data in Neuroepigenetics. | |
| 333 | An all-to-all approach to the identification of sequence-specific readers for epigenetic DNA modifications on cytosine. | |
| 332 | Regulation of Oxidized Base Repair in Human Chromatin by Posttranslational Modification. | |
| 331 | Delineation of the First Human Mendelian Disorder of the DNA Demethylation Machinery: TET3 Deficiency. | 1 |
| 330 | Suppression of DSB Formation by Pol□n Active DNA Demethylation is Required for Postnatal Hippocampal Development. | |
| 329 | Tet2negatively regulates memory fidelity. | 1 |
| 328 | Oxidative and non-oxidative active turnover of genomic methylcytosine in distinct pluripotent states. | |
| 327 | Emergence of a novel immune-evasion strategy from an ancestral protein fold in bacteriophage Mu. | |
| 326 | Epigenetics: Strategies for Prevention Research. **2020**, 513-529 | |
| 325 | DNA Methylation in T-Cell Development and Differentiation. **2020**, 40, 135-156 | 7 |
| 324 | Overview of Epigenetic Signatures and Their Regulation by Epigenetic Modification Enzymes. **2020**, 1-33 | |
| 323 | B1 and B2 B cells are characterized by distinct CpG modification states at DNMT3A-maintained enhancers. | |
| 322 | DNA hypohydroxymethylation in pediatric central nervous system tumors is associated with CTCF binding sites and reduced survival. | |
| 321 | TET1 interacts directly with NANOG via independent regions containing hydrophobic and aromatic residues. | |
| 320 | Immunohistochemical Detection of 5-Hydroxymethylcytosine and 5-Carboxylcytosine in Sections of Zebrafish Embryos. **2021**, 2198, 193-208 | 0 |

| | | |
|---|---|---|
| 319 | Detection of Low-Abundance DNA Modifications Using Signal Amplification-Based Immunocytochemistry. **2021**, 2198, 169-181 | |
| 318 | Genome wide efficiency profiling reveals modulation of maintenance and de novo methylation by Tets. | |
| 317 | Analysis of 5-Carboxylcytosine Distribution Using DNA Immunoprecipitation. **2021**, 2198, 311-319 | |
| 316 | Liquid Chromatography-Mass Spectrometry Analysis of Cytosine Modifications. **2021**, 2198, 67-78 | |
| 315 | Analyzing DNA-Immunoprecipitation Sequencing Data. **2021**, 2198, 431-439 | |
| 314 | Detection of TET-Oxidized 5-Methylcytosine Bases by Capillary Gel Electrophoresis. **2021**, 2198, 137-144 | |
| 313 | Design and Application of DNA Modification-Specific Transcription-Activator-Like Effectors. **2021**, 2198, 381-399 | |
| 312 | Inducible TDG knockout models to study epigenetic regulation. **2020**, 9, 1112 | 1 |
| 311 | TET2-mediated epigenetic reprogramming of breast cancer cells impairs lysosome biogenesis. | |
| 310 | Short- and long-term effects of perinatal phthalate exposures on metabolic pathways in the mouse liver. **2020**, 6, dvaa017 | 1 |
| 309 | TFEB links MYC signaling to epigenetic control of myeloid differentiation and acute myeloid leukemia. **2021**, 2, 162-185 | 6 |
| 308 | Multi-Omics Characterization of Inflammatory Bowel Disease-Induced Hyperplasia/Dysplasia in the / Mouse Model. **2020**, 22, | 1 |
| 307 | The Enzymatic Decarboxylation Mechanism of 5-Carboxy Uracil: A Comprehensive Quantum Chemical Study. **2021**, 17, 96-104 | |
| 306 | Global DNA methylation: role, status and genome-wide approaches to study epigenetic mark in cloned embryos. 41-59 | |
| 305 | Master Transcription Factors Regulate the DNA Methylation Landscape During Hepatocyte Differentiation. | |
| 304 | Phenotypic Switching of Atherosclerotic Smooth Muscle Cells is Regulated by Activated PARP1-Dependent TET1 Expression. **2021**, 28, 716-729 | 1 |
| 303 | Contribution of Dysregulated DNA Methylation to Autoimmunity. **2021**, 22, | 3 |
| 302 | The Impact of the HydroxyMethylCytosine epigenetic signature on DNA structure and function. **2021**, 17, e1009547 | 1 |

| | | |
|---|---|---|
| 301 | Systematic Profiling of Exosomal Small RNA Epigenetic Modifications by High-Performance Liquid Chromatography-Mass Spectrometry. **2021**, 93, 14907-14911 | 1 |
| 300 | Loss of ten-eleven translocation 1 (TET1) expression as a diagnostic and prognostic biomarker of endometrial carcinoma. **2021**, 16, e0259330 | 4 |
| 299 | Epigenetics: key to improve delayed wound healing in type 2 diabetes. **2021**, 1 | 1 |
| 298 | DNA Methylation in Genetic and Sporadic Forms of Neurodegeneration: Lessons from Alzheimer's, Related Tauopathies and Genetic Tauopathies. **2021**, 10, | 3 |
| 297 | Unified Description of Ultrafast Excited State Decay Processes in Epigenetic Deoxycytidine Derivatives. **2021**, 12, 11070-11077 | 1 |
| 296 | Iterative Epigenomic Analyses in the Same Single Cell. | |
| 295 | Inducible TDG knockout models to study epigenetic regulation. 9, 1112 | |
| 294 | The Impact of The Hydroxymethyl-Cytosine Epigenetic Signature on DNA Structure And Function. | |
| 293 | Downregulation of 5-hydroxymethylcytosine is associated with the progression of cervical intraepithelial neoplasia. **2020**, 15, e0241482 | 1 |
| 292 | Active DNA demethylation□the epigenetic gatekeeper of development, immunity, and cancer. **2021**, 2, e10033 | 1 |
| 291 | Hydrogen sulfide facilitates reprogramming and trans-differentiation in 3D dermal fibroblast. **2020**, 15, e0241685 | 2 |
| 290 | Review: Epigenetic mechanisms in ocular disease. **2013**, 19, 665-74 | 50 |
| 289 | In utero alcohol exposure, epigenetic changes, and their consequences. **2013**, 35, 37-46 | 47 |
| 288 | Hydroxymethylation of DNA: an epigenetic marker. **2014**, 13, 592-610 | 34 |
| 287 | Epigenetic: A missing paradigm in cellular and molecular pathways of sulfur mustard lung: a prospective and comparative study. **2015**, 18, 723-36 | 22 |
| 286 | CRISPR-Mediated Epigenome Editing. **2016**, 89, 471-486 | 23 |
| 285 | Epigenetic Regulation of Cardiac Development and Disease through DNA Methylation. **2019**, 1, 1-10 | 5 |
| 284 | Understanding Transcriptional Networks Regulating Initiation of Cutaneous Wound Healing. **2020**, 93, 161-173 | 4 |

| | | |
|---|---|---|
| 283 | TET methylcytosine oxidases: new insights from a decade of research. **2020**, 45, | 16 |
| 282 | Aging and leukemic evolution of hematopoietic stem cells under various stress conditions. **2020**, 40, 29 | 5 |
| 281 | TET2 mediated demethylation is involved in the protective effect of triptolide on podocytes. **2021**, 13, 1233-1244 | 5 |
| 280 | [Roles of ten eleven translocation proteins family and 5-hydroxymethylcytosine in epigenetic regulation of stem cells and regenerative medicine]. **2021**, 53, 420-424 | |
| 279 | DNA methylation and hydroxymethylation analysis using a high throughput and low bias direct injection mass spectrometry platform.. **2021**, 8, 101585 | 1 |
| 278 | Bisulfite-free and quantitative detection of 5-formylcytosine in DNA through qPCR. **2021**, | 0 |
| 277 | Epigenetic regulation in the neurogenic niche of the adult dentate gyrus. **2022**, 766, 136343 | 0 |
| 276 | Liquid Biopsies beyond Mutation Calling: Genomic and Epigenomic Features of Cell-Free DNA in Cancer. **2021**, 13, | 3 |
| 275 | Epigenetics and DNA Methylation. **2022**, 245-278 | |
| 274 | Sequencing 5-Formyluracil in Genomic DNA at Single-Base Resolution. **2021**, 93, 15445-15451 | 4 |
| 273 | Highly Selective Electrochemical Detection of 5-Formyluracil Relying on (2-Benzimidazolyl) Acetonitrile Labeling. **2021**, | 1 |
| 272 | Vitamin C, From Supplement to Treatment: A Re-Emerging Adjunct for Cancer Immunotherapy?. **2021**, 12, 765906 | 1 |
| 271 | Crosstalk Between Inflammatory Signaling and Methylation in Cancer.. **2021**, 9, 756458 | 0 |
| 270 | Molecular Characterization of the Clinical and Tumor Immune Microenvironment Signature of 5-methylcytosine-Related Regulators in non-small Cell Lung Cancer. **2021**, 9, 779367 | 3 |
| 269 | Developmental series of gene expression clarifies maternal mRNA provisioning and maternal-to-zygotic transition in a reef-building coral. **2021**, 22, 815 | 0 |
| 268 | Micro but mighty-Micronutrients in the epigenetic regulation of adaptive immune responses. **2021**, | 2 |
| 267 | Patterns of Maternal Neutrophil Gene Expression at 30 Weeks of Gestation, but Not DNA Methylation, Distinguish Mild from Severe Preeclampsia. **2021**, 22, | 0 |
| 266 | Impact of Oxidative DNA Damage and the Role of DNA Glycosylases in Neurological Dysfunction. **2021**, 22, | 0 |

| | | |
|---|---|---|
| 265 | Synthesis, Crystal Structure, and Biological Evaluation of Novel 5-Hydroxymethylpyrimidines. **2021**, 14, | 0 |
| 264 | Dysregulated Family Genes and Aberrant 5mC Oxidation in Breast Cancer: Causes and Consequences. **2021**, 13, | 0 |
| 263 | The Intrinsic and Extrinsic Effects of Tet Proteins During Gastrulation. | 0 |
| 262 | CRISPR/Cas9-mediated demethylation of FOXP3-TSDR toward Treg-characteristic programming of Jurkat T cells.. **2021**, 371, 104471 | 1 |
| 261 | Mechanism of DNA Methylation in Stem Cells. **2022**, 935-947 | |
| 260 | Epigenetic regulation of bone mass.. **2022**, 101612 | 2 |
| 259 | Ten-Eleven Translocation Ablation Impairs Cardiac Differentiation of Mouse Embryonic Stem Cells.. **2022**, | 1 |
| 258 | Sin3a drives mesenchymal-to-epithelial transition through cooperating with Tet1 in somatic cell reprogramming.. **2022**, 13, 29 | 0 |
| 257 | Flanking sequences influence the activity of TET1 and TET2 methylcytosine dioxygenases and affect genomic 5hmC patterns.. **2022**, 5, 92 | 4 |
| 256 | Modified cytosines cytosine in a DNA polymerase: retrieving thermodynamic and kinetic constants at the single molecule level.. **2021**, | |
| 255 | Deciphering the Epigenetic Code of Stem Cells Derived From Dental Tissues. **2022**, 2, | 0 |
| 254 | Inhibition of TET-mediated DNA demethylation suppresses osteoblast differentiation.. **2022**, 36, e22153 | 1 |
| 253 | El compromiso del sector privado con la ciencia: abriendo la caja negra de la percepci de la ciencia en la empresa. **2022**, 45, e319 | |
| 252 | Metabolic Control of Germline Formation and Differentiation in Mammals.. **2022**, 1-16 | 0 |
| 251 | Epigenetic modifications in induced pluripotent stem cells to boost myogenic commitment. **2022**, 197-223 | |
| 250 | Maternal obesity increases DNA methylation and decreases RNA methylation in the human placenta. **2021**, | 4 |
| 249 | Spectroscopic and in vitro investigations of Fe2+/Ketoglutarate-dependent enzymes involved in nucleic acid repair and modification.. **2022**, | 0 |
| 248 | The pH-Dependence of the Hydration of 5-Formylcytosine - an Experimental and Theoretical Study.. **2022**, | 2 |

| | | |
|---|---|---|
| 247 | The DNA dioxygenase Tet1 regulates H3K27 modification and embryonic stem cell biology independent of its catalytic activity.. **2022**, | 4 |
| 246 | Oxidation Enhances Binding of Extrahelical 5-Methyl-Cytosines by Thymine DNA Glycosylase.. **2022**, | |
| 245 | Navigating the hydroxymethylome: experimental biases and quality control tools for the tandem bisulfite and oxidative bisulfite Illumina microarrays.. **2022**, 14, 139-152 | 0 |
| 244 | Loss of TET reprograms Wnt signaling through impaired demethylation to promote lung cancer development.. **2022**, 119, | 1 |
| 243 | Stabilization of VEGF i-motif structure by CpG methylation.. **2022**, 594, 88-92 | 2 |
| 242 | Active demethylation upregulates CD147 expression promoting non-small cell lung cancer invasion and metastasis.. **2022**, | 0 |
| 241 | Whole Genome DNA Methylation Profiling of D2 Medium Spiny Neurons in Mouse Nucleus Accumbens Using Two Independent Library Preparation Methods.. **2022**, 13, | 0 |
| 240 | False Utopia of One Unifying Description of the Vulnerable Atherosclerotic Plaque: A Call for Recalibration That Appreciates the Diversity of Mechanisms Leading to Atherosclerotic Disease.. **2022**, ATVBAHA121316693 | 0 |
| 239 | Prediction of transcription factors associated with DNA demethylation during human cellular development.. **2022**, 30, 109 | 1 |
| 238 | The Role of Endoplasmic Reticulum and Mitochondria in Maintaining Redox Status and Glycolytic Metabolism in Pluripotent Stem Cells.. **2022**, | 0 |
| 237 | 1H NMR Chemical Exchange Techniques Reveal Local and Global Effects of Oxidized Cytosine Derivatives. | 1 |
| 236 | Dissecting Regulatory Networks in Blood Differentiation and Cancer.. **2022**, 14, | 1 |
| 235 | Macrophage migration inhibitory factor is overproduced through EGR1 in TET2 resting monocytes.. **2022**, 5, 110 | 0 |
| 234 | Epigenetic regulation of vascular smooth muscle cell function in atherosclerosis. **2013**, 15, 319 | 2 |
| 233 | MiR-3571 modulates the proliferation and migration of vascular smooth muscle cells by targeting claudin 1.. **2022**, 19, 511-524 | |
| 232 | Interaction of cervical microbiome with epigenome of epithelial cells: Significance of inflammation to primary healthcare.. **2022**, 13, 61-80 | 1 |
| 231 | Epigenomic Studies of Substance Use. **2022**, 205-219 | |
| 230 | Immune Epigenetic Crosstalk Between Malignant B Cells and the Tumor Microenvironment in B Cell Lymphoma.. **2022**, 13, 826594 | 1 |

| | | |
|---|---|---|
| 229 | DNA Hydroxymethylation in Smoking-Associated Cancers.. **2022**, 23, | 0 |
| 228 | Adapt to Persist: Glioblastoma Microenvironment and Epigenetic Regulation on Cell Plasticity.. **2022**, 11, | 1 |
| 227 | An Overview of Epigenetic Methylation in Pancreatic Cancer Progression.. **2022**, 12, 854773 | 0 |
| 226 | Excited State Dynamics of Methylated Guanosine Derivatives Revealed by Femtosecond Time-resolved Spectroscopy.. **2022**, | |
| 225 | Means, mechanisms and consequences of adenine methylation in DNA.. **2022**, | 3 |
| 224 | A comprehensive approach for genome-wide efficiency profiling of DNA modifying enzymes.. **2022**, 2, 100187 | 0 |
| 223 | Fertilization, Oocyte Activation, Calcium Release and Epigenetic Remodelling: Lessons From Cancer Models.. **2022**, 10, 781953 | 0 |
| 222 | Single-cell transcriptomics identifies potential cells of origin of MYC rhabdoid tumors.. **2022**, 13, 1544 | 0 |
| 221 | Distribution and regulatory roles of oxidized 5-methylcytosines in DNA and RNA of the basidiomycete fungi and .. **2022**, 12, 210302 | 2 |
| 220 | Biology of IDH Mutant Cholangiocarcinoma.. **2022**, | 1 |
| 219 | UHRF2 regulates cell cycle, epigenetics and gene expression to control the timing of retinal progenitor and ganglion cell differentiation.. **2022**, 149, | 1 |
| 218 | TET2 Inactivation Restrains IL-10-producing Regulatory B cells to Enable Anti-tumor Immunity in Hepatocellular Carcinoma.. **2022**, | 1 |
| 217 | The Role of Ten-Eleven Translocation Proteins in Inflammation.. **2022**, 13, 861351 | 0 |
| 216 | The N-terminal domain of TET1 promotes the formation of dense chromatin regions refractory to transcription.. **2022**, 1 | 1 |
| 215 | Occurrence and quantities of DNA modifications across the tree of life. | |
| 214 | Magnetic Immunosensor Coupled to Enzymatic Signal for Determination of Genomic DNA Methylation.. **2022**, 12, | 0 |
| 213 | Targeting Epigenetic Regulatory Enzymes for Cancer Therapeutics: Novel Small-Molecule Epidrug Development.. **2022**, 12, 848221 | 3 |
| 212 | Ascorbic acid and all-trans retinoic acid promote proliferation of chicken blastoderm cells (cBCs) by mediating DNA demethylation.. **2022**, 58, 199 | 0 |

| | | |
|---|---|---|
| 211 | Tet-mediated DNA demethylation regulates specification of hematopoietic stem and progenitor cells during mammalian embryogenesis.. **2022**, 8, eabm3470 | 0 |
| 210 | TET2-mediated epigenetic reprogramming of breast cancer cells impairs lysosome biogenesis.. **2022**, 5, | |
| 209 | Biological roles of RNA mC modification and its implications in Cancer immunotherapy.. **2022**, 10, 15 | 2 |
| 208 | Regulation of expression by single CpG methylation in downstream of transcription initiation site.. **2022**, 25, 104118 | |
| 207 | Acute air pollution exposure increases TETs in human PBMCs.. **2022**, | |
| 206 | Stability and context of intercalated motifs (i-motifs) for biological applications.. **2022**, | 0 |
| 205 | The Effect of Zinc Finger Domain Protein Spalt Like Transcription Factor 4 (SALL4A)-Mediated DNA Demethylation on Cardiac Development and Function. **2022**, 12, 1385-1390 | |
| 204 | A fast and label-free detection of hydroxymethylated DNA using a nozzle-jet printed AuNPs@TiC MXene-based electrochemical sensor.. **2022**, 244, 123421 | 4 |
| 203 | Epigenetic function in neurodevelopment and cognitive impairment. **2022**, 28, 41-53 | |
| 202 | TET deficiency perturbs mature B cell homeostasis and promotes oncogenesis associated with accumulation of G-quadruplex and R-loop structures.. **2022**, 23, 99-108 | 5 |
| 201 | 5-Hydroxymethylcytosine-mediated active demethylation is required for mammalian neuronal differentiation and function.. **2021**, 10, | 3 |
| 200 | Tet enzymes are essential for early embryogenesis and completion of embryonic genome activation. **2021**, e53968 | 1 |
| 199 | Pathogenesis of Autoimmune Hepatitis-Cellular and Molecular Mechanisms.. **2021**, 22, | 3 |
| 198 | Roles of Key Epigenetic Regulators in the Gene Transcription and Progression of Prostate Cancer.. **2021**, 8, 743376 | |
| 197 | 1H NMR chemical exchange techniques reveal local and global effects of oxidized cytosine derivatives. | |
| 196 | TET3- and OGT-Dependent Expression of Genes Involved in Epithelial-Mesenchymal Transition in Endometrial Cancer.. **2021**, 22, | 1 |
| 195 | Methylation Markers in Cutaneous Melanoma: Unravelling the Potential Utility of Their Tracking by Liquid Biopsy.. **2021**, 13, | 1 |
| 194 | Variable oxygen environments and DNMT2 determine the DNA cytosine epigenetic landscape of Plasmodium falciparum. | |

193 Epigenetic Modulators as Treatment Alternative to Diverse Types of Cancer.. **2021**, 1

192 Computational study of the pK a values of a modified G□C base pair in duplex DNA. **2022**, 43, 201-209

191 Deoxyribonucleic Acid 5-Hydroxymethylation in Cell-Free Deoxyribonucleic Acid, a Novel Cancer Biomarker in the Era of Precision Medicine.. **2021**, 9, 744990 1

190 The dynamic chromatin landscape and mechanisms of DNA methylation during mouse germ cell development.. **2022**, 0

189 Age-Related Variation in DNA Methylation. **2022**, 235-259

188 The Human Epigenome. **2022**, 3-25

187 Epigenetics and Vascular Disease. **2022**, 475-510

186 Metformin Regulates TET2 Expression to Inhibit Endometrial Carcinoma Proliferation: A New Mechanism.. **2022**, 12, 856707 1

185 Epigenetic Alterations and Inflammation as Emerging Use for the Advancement of Treatment in Non-Small Cell Lung Cancer.. **2022**, 13, 878740 1

184 Data_Sheet_1.docx. **2019**,

183 Data_Sheet_1.PDF. **2018**,

182 Data_Sheet_1.docx. **2020**,

181 Table_1.docx. **2018**,

180 Table_2.docx. **2018**,

179 Table_3.docx. **2018**,

178 Table_4.docx. **2018**,

177 Table_5.docx. **2018**,

176 Table_6.docx. **2018**,

| | | |
|---|---|---|
| 175 | Presentation_1.zip. **2019**, | |
| 174 | Table_1.DOCX. **2018**, | |
| 173 | TET2 suppresses VHL deficiency-driven clear cell renal cell carcinoma by inhibiting HIF signaling.. **2022**, | 2 |
| 172 | Tet is required for maintaining glial homeostasis in developing and adult fly brains.. **2022**, | |
| 171 | Gadd45 in DNA Demethylation and DNA Repair.. **2022**, 1360, 55-67 | 0 |
| 170 | Disturbance of calcium homeostasis and myogenesis caused by TET2 deletion in muscle stem cells.. **2022**, 8, 236 | 1 |
| 169 | Epigenetic Regulations of Perineural Invasion in Head and Neck Squamous Cell Carcinoma.. **2022**, 13, 848557 | |
| 168 | Complex cross-talk between EZH2 and miRNAs confers hallmark characteristics and shapes the tumor microenvironment.. **2022**, | 1 |
| 167 | Epi-miRNAs: Modern mediators of methylation status in human cancers.. **2022**, e1735 | 1 |
| 166 | Epigenetics and 5-Hydroxymethylcytosines as a Biomarker in Type 2 Diabetes. **2022**, 1-18 | |
| 165 | A photo-elutable and template-free isothermal amplification strategy for sensitive fluorescence detection of 5-formylcytosine in genomic DNA. **2022**, | |
| 164 | Genetic and Epigenetic Biomarkers Related to 2-Oxoglutarate/Fe(II)-Dependent Oxygenases and Implications for Disease and Toxicology. **2022**, 1-28 | |
| 163 | Deficiency of Tet3 in nucleus accumbens enhances fear generalization and anxiety-like behaviors in mice. | 0 |
| 162 | FANCD2 maintains replication fork stability during misincorporation of the DNA demethylation products 5-hydroxymethyl-2′-deoxycytidine and 5-hydroxymethyl-2′-deoxyuridine. **2022**, 13, | |
| 161 | Tet3 Deletion in Adult Brain Neurons of Female Mice Results in Anxiety-like Behavior and Cognitive Impairments. | |
| 160 | The Methylation Game: Epigenetic and Epitranscriptomic Dynamics of 5-Methylcytosine. **2022**, 10, | 3 |
| 159 | Quantification of Global DNA Hydroxymethylation Level Using UHRF2 SRA-Luciferase Based on Bioluminescence Resonance Energy Transfer. | 1 |
| 158 | Altered Hydroxymethylome in the substantia Nigra of Parkinson's disease. | 0 |

| | | |
|---|---|---|
| 157 | Global DNA hypomethylation of colorectal tumours detected in tissue and liquid biopsies may be related to decreased methyl-donor content. **2022**, 22, | 1 |
| 156 | The phosphorylation to acetylation/methylation cascade in transcriptional regulation: how kinases regulate transcriptional activities of DNA/histone-modifying enzymes. **2022**, 12, | 0 |
| 155 | A fungal dioxygenase CcTet serves as a eukaryotic 6mA demethylase on duplex DNA. | 1 |
| 154 | Germline Abnormalities in DNA Methylation and Histone Modification and Associated Cancer Risk. | |
| 153 | Labeling and Sequencing Nucleic Acid Modifications using Bio-Orthogonal Tools. | |
| 152 | Epigenetic Bearing on Fertility in Farm Animals. **2022**, 319-340 | |
| 151 | Dynamic changes in hepatic DNA methylation during the development of nonalcoholic fatty liver disease induced by a high-sugar diet. | |
| 150 | TET3 Mediates 5hmC Level and Promotes Tumorigenesis by Activating AMPK Pathway in Papillary Thyroid Cancer. **2022**, 2022, 1-13 | 1 |
| 149 | Mechanisms that regulate the activities of TET proteins. **2022**, 79, | 1 |
| 148 | DNA N6-Methyladenine Modification in Eukaryotic Genome. 13, | 0 |
| 147 | Unwinding during stressful times: Mechanisms of helicases in meiotic recombination. **2022**, | |
| 146 | Interaction of Oxidative Metabolism and Epigenetic Regulation of Gene Expression under Muscle Functional Unloading. **2022**, 58, 625-643 | |
| 145 | Updates on Molecular Targets and Epigenetic-Based Therapies for PCOS. | 0 |
| 144 | Targeting Wnt/β-Catenin Signaling by TET1/FOXO4 Inhibits Metastatic Spreading and Self-Renewal of Cancer Stem Cells in Gastric Cancer. **2022**, 14, 3232 | 4 |
| 143 | A Bayesian hierarchical model for improving measurement of 5mC and 5hmC levels: Toward revealing associations between phenotypes and methylation states. | |
| 142 | Physioxia induced Downregulation of Tet2 in Hematopoietic Stem Cells contributes to Enhanced Self-renewal. | 1 |
| 141 | Ten-Eleven Translocation-3 CXXC domain is critical for postfertilization demethylation and expression of pluripotency genes in pig embryos. | |
| 140 | Bifunctional Role of Fe(II)/2OG-Dependent TET Family 5-Methylcytosine Dioxygenases and ALKBH2,3 in Modified Cytosine Demethylation. **2022**, 2, 171-181 | |

| | | |
|---|---|---|
| 139 | Long-Term Treatment with Bortezomib Induces Specific Methylation Changes in Differentiated Neuronal Cells. **2022**, 14, 3402 | 0 |
| 138 | Folate Carrier Deficiency Drives Differential Methylation and Enhanced Cellular Potency in the Neural Plate Border. 10, | 0 |
| 137 | Psychostimulant-induced aberrant DNA methylation in an in vitro model of human peripheral blood mononuclear cells. **2022**, 14, | |
| 136 | YAP induces an oncogenic transcriptional program through TET1-mediated epigenetic remodeling in liver growth and tumorigenesis. | 0 |
| 135 | TET1 dioxygenase is required for FOXA2-associated chromatin remodeling in pancreatic beta-cell differentiation. **2022**, 13, | 0 |
| 134 | Harnessing Nature Molecular Recognition Capabilities to Map and Study RNA Modifications. **2022**, 55, 2271-2279 | 0 |
| 133 | TET1 regulates gene expression and repression of endogenous retroviruses independent of DNA demethylation. **2022**, 50, 8491-8511 | 0 |
| 132 | Toxicoepigenetics and Environmental Health: Challenges and Opportunities. **2022**, 35, 1293-1311 | 0 |
| 131 | Early Expression of Tet1 and Tet2 in Mouse Zygotes Altered DNA Methylation Status and Affected Embryonic Development. **2022**, 23, 8495 | |
| 130 | Connections between metabolism and epigenetics: mechanisms and novel anti-cancer strategy. 13, | 1 |
| 129 | The Anti-Leukemia Effect of Ascorbic Acid: From the Pro-Oxidant Potential to the Epigenetic Role in Acute Myeloid Leukemia. 10, | |
| 128 | Lighting Up Nucleic Acid Modifications in Single Cells with DNA-Encoded Amplification. **2022**, 55, 2248-2259 | 1 |
| 127 | Global analysis of cytosine and adenine DNA modifications across the tree of life. 11, | 0 |
| 126 | Epigenetic Control of Vascular Smooth Muscle Cell Function in Atherosclerosis: A Role for DNA Methylation. | 1 |
| 125 | TET enzymes regulate skeletal development through increasing chromatin accessibility of RUNX2 target genes. **2022**, 13, | 0 |
| 124 | 5-methylcytosine turnover: Mechanisms and therapeutic implications in cancer. 9, | 0 |
| 123 | TET proteins regulate T cell and iNKT cell lineage specification in a TET2 catalytic dependent manner. 13, | 0 |
| 122 | PIWI-Interacting RNA (piRNA) and Epigenetic Editing in Environmental Health Sciences. | 1 |

| | | |
|---|---|---|
| 121 | Synergistic Effect of miR-200 and Young Extracellular Matrix-based Bio-scaffolds to Reduce Signs of Aging in Senescent Fibroblasts. | |
| 120 | Bacterial methyltransferases: targeting bacterial genomes to host epigenetics. | 1 |
| 119 | The intrinsic and extrinsic effects of TET proteins during gastrulation. **2022**, 185, 3169-3185.e20 | 0 |
| 118 | Abnormal transcriptome-wide DNA demethylation induced by folate deficiency causes neural tube defects. 13, | 0 |
| 117 | Resetting the epigenome: Methylation dynamics in cancer stem cells. 10, | 0 |
| 116 | Screening of glycosylase activity on oxidative derivatives of methylcytosine: Pedobacter heparinus SMUG2 as a formylcytosine- and carboxylcytosine-DNA glycosylase. **2022**, 119, 103408 | 0 |
| 115 | Role of DNA De-methylation intermediate 5-hydroxymethylcytosine in ovarian cancer management: A comprehensive review. **2022**, 155, 113674 | 0 |
| 114 | Mechanisms of DNA Methylation and Demethylation During Mammalian Development. **2023**, 11-26 | 0 |
| 113 | A high-throughput effector screen identifies a novel small molecule scaffold for inhibition of ten-eleven translocation dioxygenase 2. | 0 |
| 112 | DNA methylation: its role in retinal health and diseases. **2022**, 625-636 | 0 |
| 111 | Oxime formation coordination-directed detection of genome-wide thymine oxides with nanogram-scale sample input. **2022**, 13, 9074-9078 | 0 |
| 110 | Chemical and enzymatic modifications of 5-methylcytosine at the intersection of DNA damage, repair, and epigenetic reprogramming. **2022**, 17, e0273509 | 0 |
| 109 | Tet2 helps blood cells balance in air. **2022**, 140, 1186-1187 | 0 |
| 108 | Prenatal lead (Pb) exposure is associated with differential placental DNA methylation and hydroxymethylation in a human population. 1-17 | 0 |
| 107 | Induced hepatic stem cells maintain self-renewal through the high expression of Myc coregulated by TET1 and CTCF. **2022**, 12, | 0 |
| 106 | DNA Methylation in Regulatory T Cell Differentiation and Function: Challenges and Opportunities. **2022**, 12, 1282 | 1 |
| 105 | Differential expression of m5C RNA methyltransferase genes NSUN6 and NSUN7 in Alzheimer disease and Traumatic Brain Injury. | 0 |
| 104 | RNA modifications: importance in immune cell biology and related diseases. **2022**, 7, | 2 |

| | | |
|---|---|---|
| 103 | Single-cell multi-omics profiling links dynamic DNA methylation to cell fate decisions during mouse early organogenesis. **2022**, 23, | 1 |
| 102 | Isoform-specific and ubiquitination dependent recruitment of Tet1 to replicating heterochromatin modulates methylcytosine oxidation. **2022**, 13, | 0 |
| 101 | Epigenetics and 5-Hydroxymethylcytosines as a Biomarker in Type 2 Diabetes. **2023**, 541-558 | 0 |
| 100 | Clonal Hematopoiesis, Somatic Mosaicism, and Age-Associated Disease. | 1 |
| 99 | Targeted demethylation at ZNF154 promotor upregulates ZNF154 expression and inhibits the proliferation and migration of Esophageal Squamous Carcinoma cells. **2022**, 41, 4537-4546 | 0 |
| 98 | A novel de novo TET3 loss-of-function variant in a Turkish boy presenting with neurodevelopmental delay and electrical status epilepticus during slow-wave sleep. **2022**, | 0 |
| 97 | DNA methylation reprogramming of genomic imprints in the mammalian germline: A TET-centric view. | 0 |
| 96 | Developmental toxicant exposures and sex-specific effects on epigenetic programming and cardiovascular health across generations. | 0 |
| 95 | MXene Enhanced Photoactivity of Bi2O3/Bi2S3 Heterojunction with G-wire Superstructure for Photoelectrochemical Detection of TET1 Protein. | 0 |
| 94 | Vitamin C epigenetically controls osteogenesis and bone mineralization. **2022**, 13, | 1 |
| 93 | BRAF Inhibitor Resistance in Melanoma: Mechanisms and Alternative Therapeutic Strategies. | 2 |
| 92 | TAPS: The Development of a Direct and Base-Resolution Sequencing Method for DNA Methylation. | 0 |
| 91 | Epigenomic reprogramming in iAs-mediated carcinogenesis. **2022**, | 0 |
| 90 | Modulation of DNA/RNA Methylation Signaling Mediating Metabolic Homeostasis in Cancer. **2022**, 201-237 | 0 |
| 89 | Photo-Facilitated Detection and Sequencing of 5-Formylcytidine RNA. | 0 |
| 88 | Epigenetic mechanisms of cadmium-induced nephrotoxicity. **2022**, 100372 | 0 |
| 87 | Synthetic lethal targeting ofTET2-mutant hematopoietic stem and progenitor cells by XPO1 inhibitors. | 0 |
| 86 | Photo-Facilitated Detection and Sequencing of 5-Formylcytidine RNA. | 1 |

| | | |
|---|---|---|
| 85 | Modification mapping by nanopore sequencing. 13, | 0 |
| 84 | Epigenetics of neural differentiation: Spotlight on enhancers. 10, | 0 |
| 83 | Ultrasensitive Simultaneous Detection of Multiple Rare Modified Nucleosides as Promising Biomarkers in Low-Put Breast Cancer DNA Samples for Clinical Multi-Dimensional Diagnosis. **2022**, 27, 7041 | 0 |
| 82 | Regulators of epigenetic change in ferroptosis-associated cancer (Review). **2022**, 48, | 0 |
| 81 | Acute deletion of TET enzymes results in aneuploidy in mouse embryonic stem cells through decreased expression of Khdc3. **2022**, 13, | 0 |
| 80 | Upregulation of cytidine deaminase in NAT1 knockout breast cancer cells. | 1 |
| 79 | Genetic and epigenetic regulation of growth, reproduction, disease resistance and stress responses in aquaculture. 13, | 0 |
| 78 | Epigenetic aging and its reversal. **2023**, 9-38 | 0 |
| 77 | N6-methyladenine: A Rare and Dynamic DNA Mark. **2022**, 177-210 | 0 |
| 76 | Recent Advances on DNA Base Flipping: A General Mechanism for Writing, Reading, and Erasing DNA Modifications. **2022**, 295-315 | 0 |
| 75 | Genetic Studies on Mammalian DNA Methyltransferases. **2022**, 111-136 | 0 |
| 74 | Structure and Function of TET Enzymes. **2022**, 239-267 | 1 |
| 73 | Mechanisms and Biological Roles of DNA Methyltransferases and DNA Methylation: From Past Achievements to Future Challenges. **2022**, 1-19 | 0 |
| 72 | Pyrimidine Nucleosides Syntheses by Late-Stage Base Heterocyclization Reactions. | 1 |
| 71 | Loss of neuronal Tet2 enhances hippocampal-dependent cognitive function. **2022**, 41, 111612 | 1 |
| 70 | Epigenetic regulation in myocardial infarction: Non-coding RNAs and exosomal non-coding RNAs. 9, | 1 |
| 69 | Early recruitment of PARP-dependent m8A RNA methylation at DNA lesions is subsequently accompanied by active DNA demethylation. **2022**, 19, 1153-1171 | 0 |
| 68 | The balance between NANOG and SOX17 mediated by TET proteins regulates specification of human primordial germ cell fate. **2022**, 12, | 0 |

| | | |
|---|---|---|
| 67 | Neuropsychological Outcome of Glucose Transporter-1 Deficiency Syndrome: a Case Study of Identical Twin Boys Without Intellectual Disability. | 0 |
| 66 | Epigenetic alterations fuel brain metastasis via regulating inflammatory cascade. **2022**, | 0 |
| 65 | Nickel-induced alterations to chromatin structure and function. **2022**, 116317 | 0 |
| 64 | 5-Formylcytosine weakens the G□□ pair and imparts local conformational fluctuations to DNA duplexes. **2022**, 25, 241-254 | 0 |
| 63 | Two for the price of one: itaconate´and its derivatives´as an anti-infective and anti-inflammatory immunometabolite. **2023**, 80, 102268 | 1 |
| 62 | Differential expression of Tet family genes and their potential role in regulating skeletal muscle development of Siniperca chuatsi. | 0 |
| 61 | The magic bullet: Niclosamide. 12, | 1 |
| 60 | Regulation of □pha-Synuclein Gene (SNCA) by Epigenetic Modifier TET1 in Parkinson Disease. **2022**, 26, S85-93 | 0 |
| 59 | PPAR□n the Epigenetic Driver Seat of NAFLD: New Therapeutic Opportunities for Epigenetic Drugs?. **2022**, 10, 3041 | 0 |
| 58 | Regulation of DNA Methylation by Cannabidiol and Its Implications for Psychiatry: New Insights from In Vivo and In Silico Models. **2022**, 13, 2165 | 0 |
| 57 | Recognition of 5-methyl-CG and CG base pairs in duplex DNA with high stability using antiparallel-type triplex-forming oligonucleotides with 2-guanidinoethyl-2?-deoxynebularine. **2022**, 50, 12071-12081 | 1 |
| 56 | Methylation of TET2 Promoter Is Associated with Global Hypomethylation and Hypohydroxymethylation in Peripheral Blood Mononuclear Cells of Systemic Lupus Erythematosus Patients. **2022**, 12, 3006 | 0 |
| 55 | Epigenetic signature in neural plasticity: the journey so far and journey ahead. **2022**, 8, e12292 | 2 |
| 54 | DNA methylation in cell plasticity and malignant transformation in liver diseases. **2022**, 108334 | 0 |
| 53 | DNA methylation and hydroxymethylation characterize the identity of D1 and D2 striatal projection neurons. **2022**, 5, | 0 |
| 52 | Mammalian DNA methylome dynamics: mechanisms, functions and new frontiers. **2022**, 149, | 0 |
| 51 | Third Generation Sequencing of Epigenetic DNA. | 0 |
| 50 | Evaluation of cytosine conversion methods for whole-genome DNA methylation profiling. 11, 1450 | 0 |

| | | |
|---|---|---|
| 49 | Dynamic regulation and key roles of ribonucleic acid methylation. 16, | 0 |
| 48 | Tet2- andTet3-Mediated Cytosine Hydroxymethylation inSix2Progenitor Cells in Mice Is Critical for Nephron Progenitor Differentiation and Nephron Endowment. ASN.2022040460 | 0 |
| 47 | Third Generation Sequencing of Epigenetic DNA. | 0 |
| 46 | Dynamic DNA methylation turnover at the exit of pluripotency epigenetically primes gene regulatory elements for hematopoietic lineage specification. | 0 |
| 45 | 5-Methylcytosine and 5-Hydroxymethylcytosine in Scrapie-Infected Sheep and Mouse Brain Tissues. **2023**, 24, 1621 | 0 |
| 44 | Epigenetic Modification of Cytosines in Hematopoietic Differentiation and Malignant Transformation. **2023**, 24, 1727 | 1 |
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| 42 | Role of epigenetics in pancreatic ductal adenocarcinoma. | 0 |
| 41 | The emerging role of TET enzymes in the immune microenvironment at the maternal-fetal interface during decidualization and early pregnancy. 13, | 0 |
| 40 | Differential expression of m5C RNA methyltransferase genes NSUN6 and NSUN7 in Alzheimer disease and traumatic brain injury. | 0 |
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| 36 | Loss of TET2 impairs endothelial angiogenesis via downregulating STAT3 target genes. **2023**, 13, | 0 |
| 35 | Genetic and Epigenetic Biomarkers Related to 2-Oxoglutarate/Fe(II)-Dependent Oxygenases and Implications for Disease and Toxicology. **2023**, 323-349 | 0 |
| 34 | Multiplexed Methylated DNA Immunoprecipitation Sequencing (Mx-MeDIP-Seq) to Study DNA Methylation Using Low Amounts of DNA. | 0 |
| 33 | Unexpected thermodynamic signature for the interaction of hydroxymethylated DNA with MeCP2. **2023**, 232, 123373 | 0 |
| 32 | An Update of Epigenetic Drugs for the Treatment of Cancers and Brain Diseases: A Comprehensive Review. **2023**, 14, 873 | 0 |

| | | |
|---|---|---|
| 31 | TET2-mediated upregulation of 5-hydroxymethylcytosine in LRRC39 promoter promotes Th1 response in association with downregulated Treg response in Vogt-Koyanagi-Harada disease. **2023**, 250, 109323 | 0 |
| 30 | Cell signaling pathways based on vitamin C and their application in cancer therapy. **2023**, 162, 114695 | 0 |
| 29 | A highly sensitive signal-on biosensor based on restriction enzyme-mediated molecular switch for detection of TET1. **2023**, 152, 108433 | 0 |
| 28 | Differential expression of Tet family genes and their potential role in regulating skeletal muscle development of Siniperca chuatsi. **2023**, 29, 101486 | 0 |
| 27 | Highly selective and real-time detection of 5-hydroxymethylcytosine in genomic DNA using a carbon nitride-modified gold transducer-based electrochemical sensor. **2023**, 948, 169715 | 0 |
| 26 | TET1-mediated microRNA-188-5p promoter hydroxymethylation regulates PTEN/PI3K/AKT signaling pathway in acute myeloid leukemia cells. **2023**, 736, 109523 | 0 |
| 25 | Epi-Drugs Targeting RNA Dynamics in Cancer. **2023**, | 0 |
| 24 | Synthetic lethal targeting of TET2 -mutant haematopoietic stem and progenitor cells by XPO1 inhibitors. **2023**, 201, 489-501 | 0 |
| 23 | Hydroxymethylation and Epigenetic Drugs: New Insights into the Diagnosis and Treatment in Epigenetics of Hepatocellular Carcinoma. **2023**, 2023, 1-8 | 0 |
| 22 | Changes in Mitochondrial Epigenome in Type 2 Diabetes Mellitus. 80, | 0 |
| 21 | In-source fragmentation of nucleosides in electrospray ionization towards more sensitive and accurate nucleoside analysis. **2023**, 148, 1500-1506 | 0 |
| 20 | TET1 Catalytic Activity is Required for Reprogramming of Imprinting Control Regions and Patterning of Sperm-Specific Hypomethylated Regions. | 0 |
| 19 | Epigenetic Regulators of DNA Cytosine Modification: Promising Targets for Cancer Therapy. **2023**, 11, 654 | 0 |
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| 17 | Epigenetic Regulation of Globin Genes and the Potential to Treat Hemoglobinopathies through Epigenome Editing. **2023**, 14, 577 | 0 |
| 16 | Epigenetics as a versatile regulator of fibrosis. **2023**, 21, | 0 |
| 15 | Punicalagin protects against impaired skeletal muscle function in high-fat-diet-induced obese mice by regulating TET2. **2023**, 14, 3126-3138 | 0 |
| 14 | Uracil Repair - A Source of DNA Glycosylase Dependent Genome Instability. | 0 |

| | | |
|---|---|---|
| 13 | Clonal Hematopoiesis and the Heart: a Toxic Relationship. **2023**, 25, 455-463 | 0 |
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| 11 | A View on Uterine Leiomyoma Genesis through the Prism of Genetic, Epigenetic and Cellular Heterogeneity. **2023**, 24, 5752 | 0 |
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| 9 | Hybridization-based CpG methylation level detection using methyl-CpG-binding domain-fused luciferase. **2023**, 415, 2329-2337 | 0 |
| 8 | Valproic acid. **2023**, | 0 |
| 7 | Epigenetic and epitranscriptomic regulation of axon regeneration. | 0 |
| 6 | Phenotypic and transcriptomic impact of expressing mammalian TET2 in the Drosophila melanogaster model. **2023**, 18, | 0 |
| 5 | Kinetic Studies on the 2-Oxoglutarate/Fe(II)-Dependent Nucleic Acid Modifying Enzymes from the AlkB and TET Families. **2023**, 3, 65-84 | 0 |
| 4 | The Epigenesis of Salivary Glands Carcinoma: From Field Cancerization to Carcinogenesis. **2023**, 15, 2111 | 0 |
| 3 | Helicobacter pylori-induced aberrant demethylation and expression of GNB4 promotes gastric carcinogenesis via the Hippo-YAP1 pathway. **2023**, 21, | 0 |
| 2 | Hypoxia switches TET1 from being tumor-suppressive to oncogenic. | 0 |
| 1 | TET2 Promotes Keloid Hyperplasia by Regulating 5hmC Modification in the TGF-Promoter Region. Volume 16, 1063-1070 | 0 |