

| Recent patents in epigenetics | | | | |
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| Patent number | Description | Assignee | Inventor | Date |
| US 10,023,592 | Substituted heterocyclic derivative compounds, compositions comprising said compounds, and the use of said compounds and compositions for epigenetic regulation by inhibition of bromodomain-mediated recognition of acetyllysine regions of proteins, such as histones. Said compositions and methods are useful for the treatment of cancer and neoplastic disease. | Celgene Quanticel Research (San Diego) | Bolloor A | 7/17/2018 |
| US 9,988,667 | Methods and devices for the identification of a plurality of epigenetic markers on genetic material, or chromatin, encompassing fragments thereof. The methods and devices provide for the characterization of the genetic material flowing through a channel in a continuous body of fluid based on detection of one or more properties of the genetic material. | Cornell University (Ithaca, NY, USA) | Craighead HG, Cipriany BR, Levy S, Soloway P | 6/5/2018 |
| US 9,982,308 | A method of detecting a predisposition to, or the incidence of, cancer in a sample, comprising detecting an epigenetic change in at least one gene selected from an <i>NDRG4/NDRG2</i> subfamily gene, <i>GATA4</i> , <i>OSMR</i> , <i>GATA5</i> , <i>SFRP1</i> , <i>ADAM23</i> , <i>JPH3</i> , <i>SFRP2</i> , <i>APC</i> , <i>MGMT</i> , <i>TFPI2</i> , <i>BNIP3</i> , <i>FOXE1</i> , <i>SYNE1</i> , <i>SOX17</i> , <i>PHACTR3</i> and <i>JAM3</i> , wherein detection of the epigenetic change is indicative of a predisposition to, or the incidence of, cancer. Also, pharmacogenetic methods for determining suitable treatment regimens for cancer and methods for treating cancer patients, based around selection of the patients according to the methods of the invention. | Exact Sciences Development Company (Madison, WI, USA) | Van Engeland M, De Bruine MA, Griffioen A, Louwagie J, Bierau K, Brichard G, Otto G, Penning M | 5/29/2018 |
| US 9,968,580 | Treatment of genetic and epigenetic diseases and disorders such as Rett syndrome, trinucleotide repeat diseases such as fragile X syndrome, memory impairment, chronic inflammation, precancerous conditions that involve cancer stem cells, and conditions that involve cancer stem cells that have survived in spite of cancer treatment, with FDA-approved dietary compositions in the form of dietary supplements and nutraceuticals. | Ott DM | Ott DM | 5/15/2018 |
| US 9,914,981 | Means and methods to produce abiotic-stress-tolerant plants with improved yield based on the specific identification of a DNA methylation signature in the plants out of a population of the plants. The methods involve identification and utilization of epigenetic features of a plant with high energy use efficiency. | Bayer CropScience (Diegem, Belgium) | Akpo EI, Laga B, De Block M | 3/13/2018 |
| US 9,857,358 | A method for evaluating free eukaryotic cell nuclei for biomarkers of DNA damage and/or transcription factor activation, activity, or expression levels and/or epigenetic modifications to chromatin or chromatin-associated factors. Also, strategies for combining nuclear biomarkers into a matrix of endpoints that are capable of elucidating genotoxicants' primary mode of DNA-damaging activity. | Litron Laboratories (Rochester, NY, USA) | Dertinger SD, Bryce SM, Bemis JC | 1/2/2018 |
| US 9,840,526 | Bromodomain-containing protein 4 is an attractive epigenetic target for anticancer therapy. Iridium(III) complexes are useful as irreversible inhibitor of BRD4. A formula and a particularly useful example are described. | University of Macau, Hong Kong Baptist University, Kaohsiung Medical University | Leung C-H, Zhong H-J, Ma D-L, Wang H-M | 12/12/2017 |
| US 9,797,016 | Methods and biomarkers (e.g., epigenetic biomarkers) for detection of bladder cancer in biological samples (e.g., tissue samples, urine samples, urine sediments); useful in discriminating between bladder cancer, prostate cancer and renal epithelial tumors. | Oslo University Hospital | Lind GE, Lothe RA, Skotheim RI, Jeronimo C, Costa VL, Henrique R, Teixeira MR | 10/24/2017 |
| US 9,750,731 | Methods and compositions for modulating the function of transcription factors, especially transcription factors that recruit epigenetic regulators (histone modifying enzymes) to specific DNA promoters. The targeted transcription factors include but are not limited to the myocyte enhancing factor (MEF2), the forkhead/winged helix transcription factor FOXP3 and the transcription factor GATA3. Also, small molecule modulators of MEF2 and its associated factors that include but are not limited to histone deacetylases, p300/CBP and Cabin1, and the therapeutic applications thereof. | University of Southern California (Los Angeles) | Chen L, Jayathilaka N, Han A, Petasis N | 9/5/2017 |

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