

Curriculum Vitae

NAME Zdenko Herceg (P5)		POSITION TITLE Head, Department of Mechanisms of Carcinogenesis Head, Epigenetics Group	
EDUCATION/TRAINING (<i>begin with tertiary education</i>)			
INSTITUTION AND LOCATION	DEGREE (<i>if applicable</i>)	YEAR(s)	FIELD OF STUDY
University of Sarajevo, Faculty of Veterinary Medicine, Sarajevo BiH	DVM	1987	Veterinary Medicine
University of Sarajevo, BiH	MSc	1989	Radiation Biology
University of St Andrews, Scotland, U.K	PhD	1995	Mol./Cellular Biology
Institute Molecular Pathology (IMP), Vienna, Austria	Postdoctoral	1996-1997	Mol./Cellular Biology
International Agency for Res. on Cancer (IARC) Lyon, France	Postdoctoral	1997-1999	Cancer Research

POSITIONS

1996-1997	Postdoctoral scientist, Institute of Molecular Pathology (IMP), Vienna, Austria
1997-1999	Postdoctoral fellow, Int. Agency for Research on Cancer (IARC), Lyon, France
1999-2002	Staff scientist (temporary staff), IARC, Lyon, France
2002-2006	Staff scientist (principal investigator), IARC, Lyon, France
2006-2007	Team leader, International Agency for Research on Cancer (IARC), Lyon, France
2007-now	Group head, International Agency for Research on Cancer (IARC), Lyon, France
2011-now	Section head, Mechanisms of Carcinogenesis Section, IARC, Lyon, France

MAJOR OPERATIONAL MANAGEMENT AND COMMITTEE ASSIGNMENTS:

- Section Head, Mechanisms of Carcinogenesis, IARC (since 2011)
- Group Head, Epigenetics Group, IARC (since 2007)
- Team Leader, Epigenetics Team, IARC (2006-2007)
- Responsible Officer, IARC Fellowship Programme (since 2009)
- Chairman, IARC Professional Staff Selection Committee (2008-2009)
- Chairman, IARC General Service Staff Selection Committee (2008-2009)
- Member of IARC Fellowships Selection Committee (since 2006)
- Member of IARC Laboratory Steering Committee (since 2009)
- Member of IARC Biobank and Resource Committee (since 2012)
- Member of Steering Committee of the International Childhood Cancer Cohorts Consortium, I4C (since 2009)
- Member of the Organizing Committee of the IARC's Research Leadership Forum (2011)
- Elected Member of IARC Staff Association Committee (2003-2004)
- Coordinator of the meeting series on laboratory science at IARC (since 2013)
- Member of the writing group for the IARC's Medium-Term Strategy 2016-2020 (2014)

SCIENTIFIC SOCIETY MEMBERSHIPS:

- American Association for Cancer Research (AACR)
- European Association for Cancer Research (EACR)
- European Association for the Study of the Liver (EASL)
- Epigenetics Society
- Croatian Society for Cancer Research

AWARDS AND HONOURS:

Obtained many awards and recognitions including:

IAEA Fellowship
The British Council Award for Young Scientists
The IARC Special Training Award
The Swiss Bridge Award 2006

TEACHING EXPERIENCE:

- Lecture contribution to the Master of cancerology course on epigenetics at Centre Léon Bérard, Lyon, France, since 2013
- Lecture contribution to the Master course on epigenetics at École Normale Supérieure de Lyon (ENS), since 2007
- Demonstrator (part-time) at the School of Biological and Medical Sciences, University of St Andrews, 1993-1995
- Teaching assistant - undergraduate studies (Radiation Biology and Roentgenology), Department of Radiology, University of Sarajevo (B&H)

STUDENT AND POST-DOCTORAL SUPERVISION:

- Successfully supervised or co-supervised to completion 15 PhD students and 18 Masters students as well as 30 post-doctoral fellows to date
- Habilitation à Diriger des Recherches – HDR (the formal French accreditation to supervise doctoral students) awarded (dispense officielle d'HDR) by the Scientific Council of the Claude Bernard-Lyon-1 University, in 2012

REVIEWER FOR PEER REVIEW JOURNALS:

Nature Genetics, Nature Cell Biology, Nature Medicine, Genes and Development, Molecular Cell, EMBO J, EMBO Reports, Cancer Research, Journal of Cell Biology, Oncogene, Molecular and Cell Biology, Carcinogenesis, PLoS One, Clinical Cancer Research, Hepatology, Journal of Hepatology, Genome Biology, Epigenetics, Cancer Letters, Genes Chromosomes and Cancer, International Journal of Cancer, European Journal of Cancer, Human Molecular Genetics, FEBS Letters, Mutagenesis, Cancer, Tumour Biology, Lung Cancer, Molecular Medicine, BMC Cancer, Trends in Genetics, Nature Reviews in Genetics

REVIEWER FOR GRANTING AGENCIES:

European Commission - Horizon 2020, NIH/NCI, Wellcome Trust, Cancer Research UK, Swiss Cancer Ligue, Dutch Cancer Society, Institut National du Cancer (INCa, France), La Ligue nationale contre le cancer (France), Hong Kong Research Grants Council (CERG), AICR UK, Foundation for Science and Technology Portugal, Italian Association for Cancer Research (AICR), World Cancer Research Fund (WCRF), Agence nationale de recherche (ANR, France) Agence nationale de recherches sur le sida et les hépatites virales (ANRS, France), Austrian Science Fund (FWF), MRC UK

RECENT SELECTED RESEARCH GRANTS AWARDED

1. INSERM - Identification of epigenetic precursors of childhood cancer and associated in utero determinants. (2015-2018) EUR 576,000 Euros
2. INCa (PRT-K-2015) - Molecular characterization of malignant pleural mesothelioma. (2016-2019) 603,013 Euros
3. EC/TRANSCAN - MetBreCS: A randomized placebo controlled phase II study with Metformin in metabolic-unbalanced breast cancer survivors at higher risk for recurrences. (2014-2017) EUR 1,230,320 Euros
4. INCa - Cancer cell identity and gene expression layers (from epigenetics to alternative splicing). (2014-2017) EUR 469,760 Euros
5. Canadian Institutes of Health Research (CIHR) - MicroRNA signature in the chemoprevention and chemoresistance of mammary carcinoma by probiotics through

- controlling cancer stem cells. (2014-2016) 100,000 CDN
6. INSERM, France - Evolution of the epigenomic landscape during inflammation-related cancer. PI: H. Hernandez-Vargas; CoI: Z. Herceg, IARC. (2014-2017) EUR 196,150 Euros
 7. NIH - MicroRNA & Breast Cancer: Functional Characterization in a Population-Based Study. (01/09/2013-30/08/2018) USD 4,063,604
 8. EC/TRANSCAN - EpiMARK: An integrated approach for epigenetic risk assessment and biomarker development for breast cancer in prospective cohorts. (01/04/2014-31/03/2017) EUR 1,388,363
 9. Bill and Melinda Gates Foundation - Effects of in utero exposure on growth: identifying epigenetic biomarkers at birth in a population with seasonal dietary deprivation and aflatoxins exposure (01/05/12-31/04/13). USD 100 000
 10. Institut National du Cancer (INCa), France - Biomarqueurs en vitamines B, Epigénome, polymorphismes génétiques et risque de cancer du sein dans la cohorte EPIC (European Prospective Investigation into Cancer and Nutrition) (01/10/12-31/12/15). Euro 650 000
 11. EU FP7 - Enhanced individualized exposure assessment and omic profiling for high priority environmental exposures in Europe, EXPOsOMICS. (01/11/12-31/10/16). Euro 9 000 000
 12. Agence nationale de recherches sur le sida et les hépatites virales (ANRS), France - Epigenetic reprogramming of human hepatocytes in response to hepatitis B virus infection. (01/09/12-31/12/14). Euro 50 000
 13. Bill and Melinda Gates Foundation - Understanding mechanisms and identifying biomarkers for the relationship between aflatoxin exposure and child stunting. (01/01/13-31/12/16). USD 2 000 000
 14. EU FP7 - IARC Fellow II (COFUND). (01/01/13-31/12/18). Euro 1 240 565
 15. INCa, France, PAIR VADS - Tumor Matrix Environment: Role of Fibronectin and Tenascin C in the progression, spread and loco-regional relapse of HNSCC. (01/07/11-31/06/14). Euro 616 720
 16. INCa, France. LYon Recherche Intégrée en Cancérologie (LYRIC). PI: J.-Y. Blay. IARC Co-Is: Z. Herceg, together with 6 other IARC colleagues (01/01/12-31/12/16). Euro 9 000 000
 17. NIH/NCI - One-carbon metabolism biomarker and lung cancer risk. (01/09/11-31/08/15). USD 5 039 028
 18. EU FP7 - Genomic and Epigenomic Complex Disease Epidemiology (GEOCoDE). (01/02/10-31/01/14). Euro 875 000 (Amount for IARC: Not specified, funds are allocated on ad hoc basis for international networking)
 19. ANRS, France - Epigenetic changes induced by HBV infection in hepatocellular carcinoma. (01/01/09-31/12/10). Euro 99 040

RECENT SELECTED INVITED PRESENTATIONS AT INTERNATIONAL MEETINGS:

- UK MEG Meeting "Epigenomics and disease" London, 8 December 2006
- EEMS/ECNIS Meeting, Prague, Czech Republic, 4 July 2006
- Epigenetics and Cancer Meeting, IARC, Lyon, France, 22-23 June 2006
- Meeting on Childhood Cancer - IARC, Lyon, France, 15-16 May 2006
- UK Chromatin Meeting '07, Nottingham, UK 12-13 April 2007
- Journées Scientifiques du CLARA, Grenoble, 19-20 March 2007
- 5th ICEMHP Conference, Antalya, Turkey, 20-24 May 2007
- Meeting of Lung Cancer Group Central/Eastern Europe - IARC, Lyon, 21 June 2007
- Meeting of International Study on Embryonal Tumours, IARC, Lyon, 28 September 2007
- Epigenetic Profiling (EpiPro) Meeting, Grenoble, France, 1 June 2006
- Meeting of Lung Cancer Group in C/E Europe, IARC, Lyon, France, 21 June 2007
- Epigenetics and Cancer Meeting, Lyon, France, 6-7 December 2007
- NewGeneris Meeting "Systems biology approaches to biomarkers of environmental health"

- Athens, Greece, 14 February 2008
- EPIC-EUR-GAST II Meeting, Barcelona, Spain, 11 March 2008
- EPIC-ECNIS workshop, London, UK, 21 April 2008
- EACR Symposium, Lyon, France, 5-8 July 2008
- IARC-EACR-AACR-ECNIS Symposium Integrative Molecular Cancer Epidemiology, Lyon, France, 3-5 July 2008
- Workshop "Omics for assessing unclear risk", Berlin, Germany, 26-28 May 2008
- Epigenomics & Sequencing Meeting, Boston, USA, 14-15 July 2008
- 29th Congress of the Italy Society of Pathology, Calabria, Italy, 10-13 September 2008
- EEMS 39th Annual Meeting, Cavtat, Croatia, 21-25 September 2008
- Jacques Monod Conference "Biological Response to DNA Damage", Roscoff, France, 11-15 October 2008
- DKFZ-CLARA Meeting "Infection and Cancer", Lyon, France, 23-24 January 2009
- ECNIS meeting, Brussels-Leuven, Belgium, 16-18 March 2009 (invited seminar on cancer biomarkers)
- ECNIS meeting, Brussels-Leuven, Belgium, 16-18 March 2009 (invited seminar on epigenetic mechanisms)
- Meeting "Frontiers in Carcinogenesis and Cancer Prevention Research", Reading, USA, 24 April 2009
- EACR Meeting, Cambridge, UK, 6-8 July 2009
- ICEM meeting, Florence, Italy, 20-25 August 2009
- EUROTOX Meeting, Dresden, Germany, 14 September 2009
- ECCO-ESMO Meeting, Berlin, Germany, 22 September 2009
- Austrian Ministry of Science-IARC Meeting, Vienna, Austria, 19 October 2009
- International Childhood Cancer Cohort Consortium (I4C) meeting, Lyon, France, 16-17 November 2009
- International Meeting "Epigenetics 2009", Melbourne, Australia, 1-4 December 2009
- Meeting of Canceropole PACA, Marseille, France, 26 February 2010
- Cambridge Healthcare Institute meeting on Epigenetics, San Diego, USA, 15-17 March 2010
- Meeting of European Association for Cancer Research, Oslo, Norway, 26-29 June 2010
- PACA/CLARA Canceropole Meeting on Bioinformatics, Genomics and Cancer, Lyon, France, 8 September 2010
- Journee Institut Albert Bonniot, Grenoble, 28 September 2010
- Princess Takamatsu Symposium, Tokyo, Japan, 17-19 November 2010
- Nutrition and Cancer meeting, Rabat, Morocco, 11 December 2010
- International Hypoxia Symposium, Lake Louise, Canada, 15-19 February 2011
- BACR meeting – Cancer Epigenetics, London, 19 May 2011
- Expert Panel Workshop on Early-Life Events and Cancer, NIH, Bethesda, USA, 25 May 2011
- Gordon Research Conference – Genetic Toxicology, Il Chiocco, Italy, 10-15 July 2011
- ECCO-ESMO Congress, Stockholm, Sweden, 24 September 2011
- International Conference on Mechanisms of Action of Nutraceuticals (ICMAN5), Brisbane, Australia, 13-15 October 2011
- MEG-UK Meeting, Leeds, UK, 14 December 2011
- EurocanPlatform meeting, Brussels, Belgium, 15 December 2011
- COPHES/DEMOCOPHES Meeting, Copenhagen, Denmark, 12 March 2012
- CERLIB Meeting, Les Houches, Chamonix, France, 11-16 March 2012
- FITMANET Network Meeting, Nice, 13 April 2012
- IARC Monographs Meeting "Tumour Concordance and Mechanisms of Carcinogenesis", Lyon, France, 16-18 April 2012
- EurocanPlatform meeting, Berlin, Germany, 2 May 2012

- Meeting EUROTOX 2012 - Congress of the European Societies of Toxicology, Stockholm, Sweden 17-20 June 2012
- European Cancer and Environment Research Institute (ECERI) Workshop, Brussels, Belgium, 26 October 2012
- IGEN meeting "Genetic Background of Chronic NCDs with High Public Health Importance", Debrecen, Hungary, 25 October 2012
- ISOMB Congress, Jerusalem, Israel, 13-17 Oct 2012
- Croatian Association for Cancer Research Meeting, Zagreb, Croatia, 8-9 November 2012
- Princess Chulabhorn International Science Congress, Bangkok, Thailand, 29 Nov 2012
- NIH Workshop "Trends in 21st Century Epidemiology", Washington, USA, 12-13 December 2012
- 5th Congress of European Microbiologists: "Epigenetic alterations induced by pathogenic microbes (viruses)", Leipzig, Germany, 21-25 July 2013
- Organization for Specialized Studies of the Esophagus (OESO) Congress Paris, France 27-30 August 2013
- EUROTOX 2013 Congress: "Epigenome changes induced by environmental factors and cancer", Interlaken, Switzerland, 1-4 September 2013
- Fédération Nationale des Collèges de Gynécologie Médicale (FNCGM) Congress Brussels, Belgium, 19 September 2013
- ECCO-ESMO-ESTRO European Cancer Congress, Amsterdam, Netherlands, 27 September – 1 October 2013
- EurocanPlatform Scientific Advisory Board meeting: "Two way translational cancer research", Heidelberg, Germany, 16 October 2013
- Chemoprevention Research Meeting, European Institute of Oncology (IEO) Milan, 13 November 2013
- 4e Congrès National Santé Environnement Lyon, France 28-29 November 2013
- International Conference on Monitoring and Surveillance of Asbestos-Related Diseases Helsinki, Finland 11-13 February 2014
- IUGEN Winter School Conference, Istanbul, Turkey 7-9 March 2014
- Exposomics International Advisory Board Meeting, IARC, 10-11 April 2014
- IV International Symposium on Translational Oncology, "Epigenome, environment and cancer", Barretos/SP, Brazil, 19-20 September 2014
- EurocanPlatform Summer School in Translational Cancer Research, 20-24 October 2014, Albufeira, Portugal
- CARCINOGENESIS 2015 MEETING, MUMBAI, ACTREC-TATA MEMORIAL HOSPITAL, 11-13 February 2015
- APASL congress, Istanbul, 11 March 2015
- EUROCANPLATFORM workshop on circulating biomarker, Oslo, 18-19 May 2015
- ISABS conference on Anthropological genetics, Bol, Croatia, 22-26 June, 2015
- EurocanPlatform Summer School in Translational Cancer Research, 16-20 October 2015, Albufeira, Portugal
- CIRCULATING BIOMARKERS conference, Glasgow, 30 September-1 Octobre 2015
- CIRCULATING BIOMARKERS IN CANCER workshop, Oslo, 18-19 May 2015
- CLARA Cancer Research Forum, Lyon, 29-30 March 2016
- Games of Epigenetics Meeting, Dubrovnik, Croatia, 24-28 April 2016
- Epigenetics an Environmental Origins of Cancer Meeting, Lyon 11-12 June 2016
- European Commission Workshop on Environmental Epigenetics and the Exposome, Brussels, 6 September 2016
- International Union of Toxicology (IUTOX XIV) Congress, Merida, Mexico, 3-6 September 2016
- BIODATA World Congress, Cambridge, UK, 26-27 October 2016

- Prenatal Programming and Toxicity (PPTOX V) Conference, Kita-Kyushu, Japan, 13-16 November 2016
- Special Seminar Faculty of Medicine Montreal, Canada 31 January 2017
- Mount Sinai Hospital, New Ypor, USA, 7 April 2017

SELETED PEER-REVIEW PUBLICATIONS:

- Ambatipudi S, Horvath S, Perrier F, Cuenin C, Hernandez-Vargas H, Le Calvez-Kelm G, ... HERCEG Z. DNA methylome analysis identifies accelerated epigenetic aging associated with postmenopausal breast cancer development. *Eur J Cancer*. 2017, 75:299-307
- Degli Esposti D, Sklias A, Lima SC, Beghelli-de la Forest Divonne S, Cahais V, ... S, Cuenin C, ... HERCEG Z. Unique DNA methylation signature in HPV-positive head and neck squamous cell carcinomas. *BMC Medicine*, 2017 In press
- Ambatipudi S, Horvath S, Perrier F, Cuenin C, Hernandez-Vargas H, Le Calvez-Kelm G, ... HERCEG Z. DNA methylome analysis identifies accelerated epigenetic aging associated with postmenopausal breast cancer development. *Eur J Cancer*. 2017, 75:299-307
- Grandin M, Mathot P, Devailly G, Bidet Y, Ghantous A, ...HERCEG Z, ... Dante R. Inhibition of DNA methylation promotes breast tumor sensitivity to netrin-1 interference. *EMBO Mol Med*. 2016 8(8):863-77.
- Joubert BR, Felix JF, Yousefi P, Bakulski KM, Just AC, HERCEG Z, Hernandez-Vargas H, ... Ghantous A, ... London SJ. DNA Methylation in Newborns and Maternal Smoking in Pregnancy: Genome-wide Consortium Meta-analysis. *Am J Hum Genet*. 2016 98:680-96.
- Grandin M, Mathot P, Devailly G, Bidet Y, Ghantous A, Favrot C, Gibert B, Gadot N, Puisieux I, HERCEG Z, Delcros JG, Bernet A, Mehlen P, Dante R. Inhibition of DNA methylation promotes breast tumor sensitivity to netrin-1 interference. *EMBO Mol Med*. 2016 Aug 1;8(8):863-77.
- Ardin M, Cahais V, Castells X, Bouaoun L, Byrnes G, HERCEG Z, Zavadil J, Olivier M. MutSpec: a Galaxy toolbox for streamlined analyses of somatic mutation spectra in human and mouse cancer genomes. *BMC Bioinformatics*. 2016 Apr 18;17:170.
- Degli Esposti D, Hernandez-Vargas H, Voegelé C, Fernandez Jimenez N, Forey N, Bancel B, Le Calvez-Kelm F, McKay J, Merle P, HERCEG Z. Identification of novel long non-coding RNAs deregulated in hepatocellular carcinoma using RNA-sequencing. *Oncotarget*. 2016 May 31;7(22):31862-77
- Joehanes R, Just AC, Marioni R, Pilling LC, Reynolds LM, ... HERCEG Z, ... London SJ. Epigenetic Signatures of Cigarette Smoking. *Circ Cardiovasc Genet*. 2016 9(5):436-447
- Vuong T, Mallet JF, Ouzounova M, Rahbar S, Hernandez-Vargas H, HERCEG Z, Matar C. Role of a polyphenol-enriched preparation on chemoprevention of mammary carcinoma through cancer stem cells and inflammatory pathways modulation. *J Transl Med*. 2016 Jan 14;14:13.
- Vaca-Paniagua F, Oliver J, Nogueira da Costa A, Merle P, McKay J, HERCEG H, Holmila R. Targeted deep DNA methylation analysis of circulating cell-free DNA in plasma using high-throughput semiconductor sequencing. *Epigenomics*, 2015 *in press*
- Lambert MP, Ancey PB, Degli Esposti D, Cros MP, Scoazec JY, Durantel D, Hernandez-Vargas H, and HERCEG Z. Aberrant DNA methylation of imprinted loci in hepatocellular carcinoma and after in vitro exposure to common risk factors. *Clinical Epigenetics*, 2015 *in press*
- Ancey PB, Testoni B, Gruffaz M, Cros MP, Durand G, Le Calvez-Kelm F, Durantel D, HERCEG Z, Hernandez-Vargas H. Genomic responses to Hepatitis B virus (HBV) infection in primary human hepatocytes. *Oncotarget*, in press
- HERCEG Z. Epigenetic Mechanisms as an Interface Between the Environment and Genome. *Adv Exp Med Biol*. 2016;903:3-15.

- Vineis P, Chadeau-Hyam M, Gmuender H, Gulliver J, Herceg Z, Wild CP, on behalf of The EXPOsOMICS Consortium The exposome in practice: Design of the EXPOsOMICS project. *Int J Hyg Environ Health*. 2016 Aug 19. pii: S1438-4639(16)30130-4.
- Wild CP, Bucher JR, de Jong BW, Dillner J, von Gertten C, Groopman JD, HERCEG Z, Holmes E, Holmila R, Olsen JH, Ringborg U, Scalbert A, Shibata T, Smith MT, Ulrich C, Vineis P, McLaughlin J. Translational cancer research: balancing prevention and treatment to combat cancer globally. *J Natl Cancer Inst*. 2014 Dec 16;107(1):353.
- Kracker S, Di Virgilio M, Schwartzenruber J, Cuenin C, Robyr D, Forveille M, McBride KM, Majewski J, Gazumyan A, Grimbacher B, Kutukculer N, HERCEG Z, Antonarakis SE, Cavazzana Calvo M, Jabado N, Nussenzweig MC, Fischer A, Durandy A. A role for the INO80 chromatin remodeling complex in immunoglobulin class switch recombination. *Journal of Allergy and Clinical Immunology*, 2014, in press
- *Martin M, Ancy PB, Cros MP, Durand G, Le Calvez-Kelm F, Hernandez-Vargas H1, HERCEG Z. Dynamic imbalance between cancer cell subpopulations induced by transforming growth factor beta (TGF- β) is associated with a DNA methylome switch. *BMC Genomics*. 2014 Jun 5;15:435.
- Tapias A, Zhou ZW, Shi Y, Chong Z, Wang P, Groth M, Platzer M, Huttner W, HERCEG Z, Yang YG, Wang ZQ. Trapp-dependent histone acetylation specifically regulates cell-cycle gene transcription to control neural progenitor fate decisions. *Cell Stem Cell*. 2014 May 1;14(5):632-43.
- Demetriou CA, Chen J, Polidoro S, ... HERCEG Z, Kyriacou K, Riboli E, Flanagan JM, Vineis P. Methylome analysis and epigenetic changes associated with menarcheal age. *PLoS One*. 2013 Nov 20;8(11):e79391.
- Aushev VN, Zborovskaya IB, Laktionov KK, Girard N, Cros MP, HERCEG Z, Krutovskikh V. Comparisons of microRNA patterns in plasma before and after tumor removal reveal new biomarkers of lung squamous cell carcinoma. *PLoS One*. 2013 Oct 9;8(10):e78649.
- *Lee HS, Barraza-Villarreal A, Hernandez-Vargas H, Sly PD, Biessy C, Ramakrishnan U, Romieu I, HERCEG Z. Modulation of DNA methylation states and infant immune system by dietary supplementation with ω -3 PUFA during pregnancy in an intervention study. *Am J Clin Nutr*. 2013 Aug;98(2):480-7.
- Aury-Landas J, Bougeard G, Castel H, Hernandez-Vargas H, Drouet A, Latouche JB, Schouft MT, Férec C, Leroux D, Lasset C, Coupier I, Caron O, HERCEG Z, Frebourg T, Flaman JM. Germline copy number variation of genes involved in chromatin remodelling in families suggestive of Li-Fraumeni syndrome with brain tumours. *Eur J Hum Genet*. 2013 Dec;21(12):1369-76.
- Ouzounova M, Vuong T, Ancy PB, Ferrand M, Durand G, Le Calvez-Kelm F, Croce C, Matar C, HERCEG Z, Hernandez-Vargas H. MicroRNA miR-30 family regulates non-attachment growth of breast cancer cells. *BMC Genomics*. 2013 Feb 28;14:139.
- *Sawan C, Hernandez-Vargas H, Murr R, Lopez F, Vaissière T, Ghantous AY, Cuenin C, Imbert J, Wang ZQ, Ren B, HERCEG Z. Histone acetyltransferase cofactor Trapp maintains self-renewal and restricts differentiation of embryonic stem cells. *Stem Cells*. 2013 May;31(5):979-91.
- *Ichim G, Mola M, Finkbeiner MG, Cros MP, HERCEG Z, Hernandez-Vargas H. The histone acetyltransferase component TRRAP is targeted for destruction during the cell cycle. *Oncogene*. 2014 Jan 9;33(2):181-92.
- Genevois AL, Ichim G, Coissieux MM, Lambert MP, Laval F, Goldschneider D, Jarrosson-Wuilleme L, Lepinasse F, Gouysse G, HERCEG Z, Scoazec JY, Tauszig-Delamasure S, Mehlen P. Dependence receptor TrkC is a putative colon cancer tumor suppressor. *Proceedings of the National Academy of Sciences of USA* 2013 Feb 19;110(8):3017-22

- Rakosy Z, Ecsedi S, Toth R, Vizkeleti L, Hernandez-Vargas H, Lazar V, Emri G, Szatmari I, HERCEG Z, Adany R, Balazs M. Integrative genomics identifies gene signature associated with melanoma ulceration. *PLoS One* 2013; 8:e54958.
- Siouda M, Yue J, Shukla R, Guillemier S, HERCEG Z, Creveaux M, Accardi R, Tommasino M, Sylla BS. Transcriptional regulation of the human tumor suppressor DOK1 by E2F1. *Molecular and Cellular Biology* 2012; 32:4877-4890.
- Xu X, Gammon MD, Hernandez-Vargas H, HERCEG Z, Wetmur JG, Teitelbaum SL, Bradshaw PT, Neugut AI, Santella RM, Chen J. DNA methylation in peripheral blood measured by LUMA is associated with breast cancer in a population-based study. *FASEB Journal* 2012; 26:2657-2666.
- Saulnier A, Vaissiere T, Yue J, Siouda M, Malfroy M, Accardi R, Creveaux M, Sebastian S, Shahzad N, Gheit T, Hussain I, Torrente M, Antonio Maffini F, Calabrese L, Chiesa F, Cuenin C, Shukla R, Fathallah I, Matos E, Daudt A, Koifman S, Wunsch-Filho V, Menezes AM, Curado MP, Zaridze D, Boffetta P, Brennan P, Tommasino M, HERCEG Z, Sylla BS. Inactivation of the putative suppressor gene DOK1 by promoter hypermethylation in primary human cancers. *International Journal of Cancer* 2011; 130:2484-2494
- *Scocciati C, Ricceri F, Ferrari P, Cuenin C, Sacerdote C, Polidoro S, Jenab M, Hainaut P, Vineis P, HERCEG Z. Methylation patterns in sentinel genes in peripheral blood cells of heavy smokers: Influence of cruciferous vegetables in an intervention study. *Epigenetics* 2011; 6:1114-1119.
- *Gospodinov A, Vaissiere T, Krastev DB, Legube G, Anachkova B, HERCEG Z. Mammalian Ino80 mediates double-strand break repair through its role in DNA end strand resection. *Molecular and Cellular Biology* 2011; 31:4735-4745.
- *Hernandez-Vargas H, Ouzounova M, Calvez-Kelm FL, Lambert MP, McKay-Chopin S, Tavtigian SV, Puisieux A, Matar C, HERCEG Z. Methylome analysis reveals Jak-STAT pathway deregulation in putative breast cancer stem cells. *Epigenetics* 2011; 6:428-39
- Kraiss AM, Hautefeuille AH, Cros MP, Krutovskikh V, Tournier JM, Birembaut P, Thepot A, Paliwal A, HERCEG Z, Boffetta P, Brennan P, Hainaut PL. CHRNA5 as negative regulator of nicotine signaling in normal and cancer bronchial cells: effects on motility, migration and p63 expression. *Carcinogenesis* 2011; 32:1388-1395.
- *Shukla V, Cuenin C, Dubey N, HERCEG Z. Loss of histone acetyltransferase cofactor transformation/transcription domain-associated protein impairs liver regeneration after toxic injury. *Hepatology* 2011; 53:954-963.
- *Vineis P, Chuang SC, Vaissiere T, Cuenin C, Ricceri F, Johansson M, Ueland P, Brennan P, HERCEG Z. DNA methylation changes associated with cancer risk factors and blood levels of vitamin metabolites in a prospective study. *Epigenetics* 2011; 6:195-201.
- *Lima SC, Hernandez-Vargas H, Simao T, Durand G, Krueel CD, Le Calvez-Kelm F, Ribeiro Pinto LF, HERCEG Z. Identification of methylome signature of esophageal squamous cell carcinoma & potential epigenetic biomarkers. *Epigenetics* 2011; 6:1217-27.
- *Lambert M-P, Paliwal A, Vaissiere T, Chemin I, Zoulim F, Tommasino M, Hainaut P, Sylla B, Scoazec J-Y, Tost J, HERCEG Z. Aberrant DNA methylation distinguishes hepatocellular carcinoma associated with HBV and HCV infection and alcohol intake. *Journal of Hepatology* 2011; 54:705-715
- *Kaur P, Paliwal A, Durantel D, Hainaut P, Scoazec JY, Zoulim F, Chemin I, HERCEG Z. DNA methylation of hepatitis B virus (HBV) genome associated with the development of hepatocellular carcinoma and occult HBV infection. *The Journal of Infectious Diseases* 2010; 202:700-704.
- *Hernandez-Vargas H, Lambert MP, Le Calvez-Kelm F, Gouysse G, McKay-Chopin S, Tavtigian SV, Scoazec JY, HERCEG Z. Hepatocellular carcinoma displays distinct DNA methylation signatures with potential as clinical predictors. *PLoS One* 2010; 5:e9749.

- *Paliwal A, Vaissiere T, Kraiss A, Cuenin C, Cros MP, Zaridze D, Moukeria A, Boffetta P, Hainaut P, Brennan P, HERCEG Z. Aberrant DNA methylation links cancer susceptibility locus 15q25.1 to apoptotic regulation and lung cancer. *Cancer Research* 2010; 70:2779-2788.
- *Loizou JI, Oser G, Shukla V, Sawan C, Murr R, Wang ZQ, Trumpp A, HERCEG Z. Histone acetyltransferase cofactor Trrap is essential for maintaining the hematopoietic stem/progenitor cell pool. *Journal of Immunology* 2009; 183:6422-6431.
- *Vaissiere T, Hung RJ, Zaridze D, Moukeria A, Cuenin C, Fasolo V, Ferro G, Paliwal A, Hainaut P, Brennan P, Tost J, Boffetta P, HERCEG Z. Quantitative analysis of DNA methylation profiles in lung cancer identifies aberrant DNA methylation of specific genes and its association with gender & cancer risk factors. *Cancer Research* 2009; 69:243-52.
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