

## **BIOSKETCH**

**Diego Pasini** was born in 1977 in Milan. He graduated from the University of Milan at the Faculty of Biological Sciences in 2002 and he joined the European Institute of Oncology (IEO) first as research assistant and then as a PhD student (Open University, London) in the laboratory of Prof. Kristian Helin at IEO. When Prof. Helin moved to Denmark to assume the direction of the new Biotech Research and Innovation Center (BRIC) of the University of Copenhagen, Dr Pasini followed him in his new laboratory where he obtained his Ph.D. in 2006. Since then, he continued his collaboration in the Helin's laboratory first as post-doctorate and then as an assistant professor of BRIC. In 2010 he moved back to Italy to start his independent laboratory as junior PI at the department of experimental oncology of the IEO. Since January 2015 he became tenured PI at IEO and was elected EMBO Young Investigator. In 2017 he was awarded of an ERC Consolidator grant. He is married since 2003 and he has three children.

## **PERSONAL INFORMATION**

Gender: male

Place and birth date: Milano (Italia), 21/07/1977

Nationality: Italian

OCRID ID: 0000-0002-9879-6486

ResercherID: J-9674-2012

WebSite: <http://www.ieo.it/it/RESEARCH/Basic-research/Department-of-Experimental-Oncology11>

## **EDUCATION**

February 2002      Master Degree in Biological Sciences at the Università degli Studi di Milano.  
Grade 110/110 *cum laude*.

July 2006            PhD at The Open University, London.

## **CURRENT POSITION**

2015-present      Tenured Group Leader at the European Institute of Oncology (Milan, Italy).

## **PREVIOUS POSITIONS**

2001-2002      Undergraduate student at the European Institute of Oncology (Milan, Italy).

2002-2004      Ph.D. student at the European Institute of Oncology (Milan, Italy).

2005-2006      Ph.D. student at BRIC, Institute of the Copenhagen University (Copenhagen, Denmark).

2006-2007      Post-doctorate at BRIC, Institute of the Copenhagen University (Copenhagen, Denmark).

2007-2009      Assistant Professor at BRIC, Institute of the Copenhagen University (Copenhagen, Denmark).

2010-2014      Junior Group Leader at the European Institute of Oncology (Milan, Italy).

## **FELLOWSHIPS, GRANTS and HONOURS**

2004 – 2004 Fellow of FIRC, the Italian Association for Cancer Research

2007 – 2009 Fellow of the Danish Medical Research Council

2010 – 2014 Start-UP unit of AIRC, the Italian Association of Cancer Research

2011 – 2014 Young Investigator Grant of the Italian Ministry of Health

2014 – 2016 Young Investigator Grant of the Umberto Veronesi Foundation

2014 – 2017 Young Investigator Grant of the Italian Ministry of Health

2015 – 2017 Investigator Grant of AIRC, the Italian Association of Cancer Research

2015 – 2017 Elected member of the EMBO Young Investigator Programme

2017 – 2022 ERC Consolidator Grant

2018 – 2022 Investigator Grant of AIRC, the Italian Association of Cancer Research

## **EVALUATION COMMITTEES**

2014 – present Scientific evaluation committee of the French National Agency for Research (ANR)

2016 – 2018 Scientific fellowship committee of the Italian Association for Cancer Research (AIRC)

## **SCIENTIFIC PRODUCTION**

Dr. Pasini publication records consist of 44 papers in international peer-reviewed journals of which 8 published as first author and 17 as last/corresponding author. Google Scholar aggregation led to the identification of 44 publications with 8411 citations with an average citation per paper of 191 and an h-index of 29.

## **PUBLICATIONS**

- Streubel G, Fitzpatrick DJ, Oliviero G, Scelfo A, Moran B, Das S, Munawar N, Watson A, Wynne K, Negri GL, Dillon ET, Jammula S, Hokamp K, O'Connor DP, Pasini D, Cagney G, Bracken AP. Fam60a defines a variant Sin3a-Hdac complex in embryonic stem cells required for self-renewal. *EMBO J.* 2017 May 29.
- Gnani D, Romito I, Artuso S, Chierici M, De Stefanis C, Panera N, Crudele A, Ceccarelli S, Carcarino E, D'Oria V, Porru M, Giorda E, Ferrari K, Miele L, Villa E, Balsano C, Pasini D, Furlanello C, Locatelli F, Nobili V, Rota R, Leonetti C, Alisi A. Focal adhesion kinase depletion reduces human hepatocellular carcinoma growth by repressing enhancer of zeste homolog 2. *Cell Death Differ.* 2017 May;24(5):889-902.
- Ferrari KJ, Lavarone E, Pasini D. The Dual Role of EPOP and Elongin BC in Controlling Transcriptional Activity. *Mol Cell.* 2016 Nov 17;64(4):637-638. doi: 10.1016/j.molcel.2016.11.009.
- Chiacchiera F, Pasini D. Control of adult intestinal identity by the Polycomb repressive machinery. *Cell Cycle.* 2016 Nov 15:1-2.
- Rossi A, Ferrari KJ, Piunti A, Jammula S, Chiacchiera F, Mazzarella L, Scelfo A, Pelicci PG and Pasini D. Maintenance of leukemic cell identity by the activity of the Polycomb complex PRC1 in mice. *Science Advances.* 2016.
- Jammula S. and Pasini D. EpiMINE, a computational program for mining epigenomic data. *Epigenetics and Chromatin.* 2016

- Chiacchiera F, Rossi A, Jammula S, Zanotti M. and Pasini D. PRC2 preserves intestinal progenitors and restricts secretory lineage commitment. *EMBO J.* 2016.
- Pasini, D\* and Di Croce\*, L. Emerging roles for Polycomb proteins in cancer. *Current Opinion in Genetics & Development.* 2016.
- Lenti, E. Farinello, D., Yokoyama, K.K. Penkov, D., Castagnaro, L., Lavorgna, G., Wuputra, K., Sandell, L.L., Butler Tjaden, N.N., Bernassola, F., Caridi, N., De Antoni, A., Wagner, M., Kozinc, K., Niederreither, K., Blasi, F., Pasini, D., Majdic, G., Tonon, G., Trainor, P.A. and Brendolan A. TLX1 Controls Retinoic Acid Signaling to Ensure Spleen Development. *Journal of Clinical Investigation.* 2016.
- Chiacchiera, F., Rossi, A., Jammula, S., Piunti A., Scelfo, A., Ordóñez-Morán, P., Huelsken, J., Koseki, H. and Pasini, D. Polycomb Complex PRC1 Preserves Intestinal Stem Cell Identity by Sustaining Wnt/ $\beta$  Catenin Transcriptional Activity. *Cell Stem Cell.* 2016.
- Pasini, D. Mapping the Function of Polycomb Proteins. *Methods Mol Biol.* 2016.
- Scelfo, A., Piunti, A. and Pasini, D. The controversial role of the Polycomb group proteins in transcription and cancer: how much do we not understand Polycomb proteins? *Febs J.* 2015
- Orfanelli, U., Jachetti, E., Chiacchiera, F., Grioni, M., Brambilla, P., Briganti, A., Freschi, M., Martinelli-Boneschi, F., Doglioni, C., Montorsi, F., Bellone, M., Casari, G., Pasini, D. and Lavorgna, G. Antisense transcription at the TRPM2 locus as a novel prognostic marker and therapeutic target in prostate cancer. *Oncogene.* 2015
- Lavorgna, G.C., F. Briganti, A. Montorsi, F. Pasini, D. Salonia, A. Expression-profiling of apoptosis induced by ablation of the long ncRNA TRPM2-AS in prostate cancer cell. *Genomics Data.* 2015
- Piunti, A., Rossi, A., Cerutti, A., Albert, M., Jammula, S., Scelfo, A., Cedrone, L., Fragola, G., Olsson, L., Koseki, H., Testa, G., Casola, S., Helin, K., d'Adda di Fagagna, F. and Pasini, D. Polycomb proteins control proliferation and transformation independently of cell cycle checkpoints by regulating DNA replication. *Nat Commun.* 2014
- Ferrari, K.J., Scelfo, A., Jammula, S., Cuomo, A., Barozzi, I., Stutzer, A., Fischle, W., Bonaldi, T. and Pasini, D. Polycomb-dependent H3K27me1 and H3K27me2 regulate active transcription and enhancer fidelity. *Mol Cell.* 2014
- Bartocci, C., Diedrich, J.K., Ouzounov, I., Li, J., Piunti, A., Pasini, D., Yates, J.R., 3rd and Lazzerini Denchi, E. Isolation of chromatin from dysfunctional telomeres reveals an important role for Ring1b in NHEJ-mediated chromosome fusions. *Cell Rep.* 2014
- Vella, P., Scelfo, A., Jammula, S., Chiacchiera, F., Williams, K., Cuomo, A., Roberto, A., Christensen, J., Bonaldi, T., Helin, K. and Pasini, D. Tet proteins connect the O-linked N-acetylglucosamine transferase Ogt to chromatin in embryonic stem cells. *Mol Cell.* 2013
- Jung, H.R., Sidoli, S., Haldbø, S., Sprenger, R.R., Schwammle, V., Pasini, D., Helin, K. and Jensen, O.N. Precision mapping of coexisting modifications in histone H3 tails from embryonic stem cells by ETD-MS/MS. *Anal Chem.* 2013
- Ferrari, K.J. and Pasini, D. Regulation and function of DNA and histone methylations. *Curr Pharm Des.* 2013
- Chiacchiera, F., Piunti, A. and Pasini, D. Epigenetic methylations and their connections with metabolism. *Cell Mol Life Sci.* 2013
- Vella, P., Barozzi, I., Cuomo, A., Bonaldi, T. and Pasini, D. Yin Yang 1 extends the Myc-related transcription factors network in embryonic stem cells. *Nucleic Acids Res.* 2012
- Stojic, L., Jasencakova, Z., Prezioso, C., Stutzer, A., Bodega, B., Pasini, D., Klingberg, R., Mozzetta, C., Margueron, R., Puri, P.L., Schwarzer, D., Helin, K., Fischle, W. and Orlando, V. Chromatin regulated interchange between polycomb repressive complex 2 (PRC2)-Ezh2 and PRC2- Ezh1 complexes controls myogenin activation in skeletal muscle cells. *Epigenetics Chromatin.* 2011

- Piunti, A. and Pasini, D. Epigenetic factors in cancer development: polycomb group proteins. *Future Oncol.* 2011
- Pasini, D., Malatesta, M., Jung, H.R., Walfridsson, J., Willer, A., Olsson, L., Skotte, J., Wutz, A., Porse, B., Jensen, O.N. and Helin, K. Characterization of an antagonistic switch between histone H3 lysine 27 methylation and acetylation in the transcriptional regulation of Polycomb group target genes. *Nucleic Acids Res.* 2010
- Pasini, D., Cloos, P.A., Walfridsson, J., Olsson, L., Bukowski, J.P., Johansen, J.V., Bak, M., Tommerup, N., Rappsilber, J. and Helin, K. JARID2 regulates binding of the Polycomb repressive complex 2 to target genes in ES cells. *Nature.* 2010
- Leeb, M., Pasini, D., Novatchkova, M., Jaritz, M., Helin, K. and Wutz, A. Polycomb complexes act redundantly to repress genomic repeats and genes. *Genes Dev.* 2010
- Jung, H.R., Pasini, D., Helin, K. and Jensen, O.N. Quantitative mass spectrometry of histones H3.2 and H3.3 in Suz12-deficient mouse embryonic stem cells reveals distinct, dynamic post-translational modifications at Lys-27 and Lys-36. *Mol Cell Proteomics.* 2010
- Riising, E.M., Boggio, R., Chiocca, S., Helin, K. and Pasini, D. The polycomb repressive complex 2 is a potential target of SUMO modifications. *PLoS One.* 2008
- Pasini, D., Hansen, K.H., Christensen, J., Agger, K., Cloos, P.A. and Helin, K. Coordinated regulation of transcriptional repression by the RBP2 H3K4 demethylase and Polycomb-Repressive Complex 2. *Genes Dev.* 2008
- Pasini, D., Bracken, A.P., Agger, K., Christensen, J., Hansen, K., Cloos, P.A. and Helin, K. Regulation of stem cell differentiation by histone methyltransferases and demethylases. *Cold Spring Harb Symp Quant Biol.* 2008
- Lindroth, A.M., Park, Y.J., McLean, C.M., Dokshin, G.A., Persson, J.M., Herman, H., Pasini, D., Miro, X., Donohoe, M.E., Lee, J.T., Helin, K. and Soloway, P.D. Antagonism between DNA and H3K27 methylation at the imprinted *Rasgrf1* locus. *PLoS Genet.* 2008
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- Bracken, A.P., Dietrich, N., Pasini, D., Hansen, K.H. and Helin, K. Genome-wide mapping of Polycomb target genes unravels their roles in cell fate transitions. *Genes Dev.* 2006

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- Pasini, D., Bracken, A.P. and Helin, K. Polycomb group proteins in cell cycle progression and cancer. *Cell Cycle.* 2004
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\*equal contribution