

Curriculum Vitae – Javier Martínez

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Personal Data:

Date & Place of Birth January 29th, 1965. Buenos Aires, Argentina.

Nationality Argentine and Spanish.

Education:

1990-1995 PhD thesis, University of Buenos Aires, Institute Leloir.

1984-1989 Magister in Biology, Molecular Genetics.

Career History:

Since 2016

Group Leader at the MFPL, Medical University of Vienna

2004-2015 Junior Group Leader at IMBA: “RNA metabolism in mammalian cells”

2001-2004 Post-Doc with Dr. Thomas Tuschl; Max Planck Institute Biophysical Chemistry (Göttingen) and Rockefeller Univ. (New York). “Identification and characterization of the human RNA-induced silencing complex, RISC”

1995-2000 Post-Doc with Dr. Anders Virtanen; University Uppsala, Sweden. “mRNA deadenylation in mammalian cells”.

Awards:

2015 EMBO Membership.

2007 European Young Investigator (EMBO-YIP) Award.

2007 Bio-Rad European RNAi Award.

2002 & 2003 Keystone Symposia Scholarship Winner.

Teaching:

2005-2015 RNAi Revolution - Advanced Cell Biology Series, University of Vienna.

2004-2010 RNA Silencing - Epigenetics Series, University of Vienna.

1998-2000 Molecular Genetics Course, University of Uppsala.

Conferences:

2006-2015 Organizer of the "Microsymposium on Small RNAs", IMBA, Vienna.

Management:

2008 EMBO Advanced Leadership Skills Training Course: Conflict management.

2005 EMBO Laboratory Management Course: The Art of Leadership.

Editorial Activities:

Since 2009 EMBO Journal and EMBO Reports: Member of the Editorial Board.

Publications in the last 5 years:

Stefan Weitzer, Toshikatsu Hanada, Josef M Penninger and Javier Martinez. (2015). **CLP1 as a novel player in linking tRNA splicing to neurodegenerative disorders.** WIREsRNA. Jan-Feb;6(1):47-63.

Jennifer Jurkin[§], Theresa Henkel[§], Anne Færch Nielsen, Martina Minnich, Johannes Popow, Therese Kaufmann, Katrin Heindl, Thomas Hoffmann, Meinrad Busslinger and Javier Martinez. (2014). **The mammalian tRNA ligase complex mediates splicing of XBP1 mRNA and controls antibody secretion in plasma cells.** [§]Co-first authors. EMBO J. Dec 17;33(24):2922-36.

Popow, J., Jurkin J., Schleiffer, A., and Martinez, J. (2014). **Analysis of eukaryotic orthologous groups reveals Archease and DDX1 as tRNA splicing factors.** Nature. Jul 3;511(7507):104-7.

Ender Karaca[#], Stefan Weitzer[#], Davut Pehlivan[#], Hiroshi Shiraishi[#], Tasos Gogakos, Toshikatsu Hanada, Shalini Jhangiani, Wojciech Wiszniewski, Marjorie Withers, Ian M. Campbell, Serkan Erdin, Sedat Isikay, Luis M. Franco, Claudia Gonzaga-Jauregui, Tomasz Gambin, Violet Gelowani, Jill V. Hunter, Gozde Yesil, Erkan Koparir, Sarenur Yilmaz, Miguel Brown, Daniel Briskin, Markus Hafner, Pavel Morozov, Thalia Farazi, Christian Bernreuther, Markus Glatzel, Siegfried Trattnig, Joachim Friske, Claudia Kronnerwetter, Matthew N. Bainbridge, Alper Gezdirici, Mehmet Seven, Donna M. Muzny, Eric Boerwinkle, Mustafa Ozen, Tim Clausen, Thomas Tuschl, Adnan Yuksel, Andreas Hess, Richard A. Gibbs, Javier Martinez*, Josef M. Penninger*, James R. Lupski*. [#] co-first authors, *co-corresponding authors. (2014). **Identification of a novel human neurological syndrome defined by CLP1 mutations that impair tRNA splicing.** Cell. 157(3): 636-650.

Barbara Mair, Johannes Popow, Karl Mechtler, Stefan Weitzer and Javier Martinez. (2013). **Intron excision from precursor tRNA molecules in mammalian cells requires ATP hydrolysis and phosphorylation of tRNA splicing endonuclease components.** Biochem Soc Trans. Aug 1;41(4):831-7.

Gebeshuber, C., Kornauth, C., Dong, L., Sierig, R., Seibler, J., Reiss, M., Tauber, S., Bilban, M., Kain, R., Englert, C., Gröne, H.J., Böhmig, G.A., Martinez, J.,[§] and Kerjaschki, D.[§] (2013). **Focal segmental glomerulosclerosis is induced by microRNA-193a and its downregulation of WT1.**[§]co-corresponding authors. Nat Med. Apr;19(4):481-7.

Hanada, T.*, Weitzer, S.*, Mair, B., Bernreuther, C., Wainger, B.J., Ichida, J., Hanada, R., Orthofer, M., Cronin, S.J., Komnenovic, V., Minis, A., Sato, F., Mimata, H., Yoshimura, A., Tamir, I., Rainer, J., Kofler, R., Yaron, A., Eggan, K.C., Woolf, C.J., Glatzel, M., Herbst, R., Martinez, J.[§], and Penninger, J.M.[§] (2013). **The RNA kinase CLP1 links tRNA metabolism to progressive motor-neuron loss.** *co-first authors; [§]co-corresponding authors. Nature. Mar 28;495(7442):474-80.

Gebeshuber, C., and Martinez, J. (2013). **miR-100 suppresses IGF2 and inhibits breast tumorigenesis by interfering with proliferation and survival signaling.** Oncogene. Jul 4;32(27):3306-10.

Popow, J., Schleiffer, A., and Martinez, J. (2012). **Diversity and Roles of (t)RNA Ligases.** Review. Cell Mol Life Sci. Volume 69, Issue 16, 2657-2670.

Popow, J.,* Englert, M.,* Weitzer, S., Schleiffer, A., Mierzwa, B., Mechtler, K., Trowitzsch, S., Will, C.L., Lührmann, R., Söll, [†] D., and Martinez, J. [†] (2011). **HSPC117 is the essential subunit of a human tRNA splicing ligase complex.** *co-first authors; [†] co-corresponding authors. Science. Feb 11;331(6018):760-4.

The ten most important publications as Group Leader at IMBA:

Jennifer Jurkin[§], Theresa Henkel[§], Anne Færch Nielsen, Martina Minnich, Johannes Popow, Therese Kaufmann, Katrin Heindl, Thomas Hoffmann, Meinrad Busslinger and Javier Martinez. (2014). **The mammalian tRNA ligase complex mediates splicing of XBP1 mRNA and controls antibody secretion in plasma cells.** [§]Co-first authors. EMBO J. Dec 17;33(24):2922-36. Epub 2014 Nov 6.

Popow, J., Jurkin J., Schleiffer, A., and Martinez, J. (2014). **Analysis of eukaryotic orthologous groups reveals Archease and DDX1 as tRNA splicing factors.** Nature. Jul 3;511(7507):104-7. Epub 2014 May 25.

Ender Karaca[#], Stefan Weitzer[#], Davut Pehlivan[#], Hiroshi Shiraishi[#], Tasos Gogakos, Toshikatsu Hanada, Shalini Jhangiani, Wojciech Wiszniewski, Marjorie Withers, Ian M. Campbell, Serkan Erdin, Sedat Isikay, Luis M. Franco, Claudia Gonzaga-Jauregui, Tomasz Gambin, Violet Gelowani, Jill V. Hunter, Gozde Yesil, Erkan Koparir, Sarenur Yilmaz, Miguel Brown, Daniel Briskin, Markus Hafner, Pavel Morozov, Thalia Farazi, Christian Bernreuther, Markus Glatzel, Siegfried Trattning, Joachim Friske, Claudia Kronnerwetter, Matthew N. Bainbridge, Alper Gezdirici, Mehmet Seven, Donna M. Muzny, Eric Boerwinkle, Mustafa Ozen, Tim Clausen, Thomas Tuschl, Adnan Yuksel, Andreas Hess, Richard A. Gibbs, Javier Martinez^{*}, Josef M. Penninger^{*}, James R. Lupski^{*}. [#] co-first authors, ^{*} co-corresponding authors. (2014). **Identification of a novel human neurological syndrome defined by CLP1 mutations that impair tRNA splicing.** Cell. 157(3): 636-650.

Hanada, T.^{*}, Weitzer, S.^{*}, Mair, B., Bernreuther, C., Wainger, B.J., Ichida, J., Hanada, R., Orthofer, M., Cronin, S.J., Komnenovic, V., Minis, A., Sato, F., Mimata, H., Yoshimura, A., Tamir, I., Rainer, J., Kofler, R., Yaron, A., Eggan, K.C., Woolf, C.J., Glatzel, M., Herbst, R., Martinez, J.[§], and Penninger, J.M.[§] (2013). **The RNA kinase CLP1 links tRNA metabolism to progressive motor-neuron loss.** ^{*} co-first authors; [§] co-corresponding authors. Nature. Mar 28;495(7442):474-80.

Popow, J.,^{*} Englert, M.,^{*} Weitzer, S., Schleiffer, A., Mierzwa, B., Mechtler, K., Trowitzsch, S., Will, C.L., Lührmann, R., Söll,[†] D., and Martinez, J.[†] (2011). **HSPC117 is the essential subunit of a human tRNA splicing ligase complex.** ^{*} co-first authors; [†] co-corresponding authors. Science. Feb 11;331(6018):760-4.

Heindl, K., Martinez, J. (2010). **Nol9 is a novel polynucleotide 5'-kinase involved in ribosomal RNA processing.** EMBO J. 29(24):4161-71.

Tafer, H., Ameres, S.L., Obernosterer, G., Gebeshuber, C.A., Schroeder, R.^{*}, Martinez, J.^{*}, Hofacker, I.L.^{*} (2008). **The impact of target site accessibility on the design of effective siRNAs.** Nat Biotechnol. 26(5):578-83. ^{*} co-corresponding authors.

Ameres, SL., Martinez, J.* , Schroeder, R.* (2007). **Molecular basis for target RNA recognition and cleavage by human RISC.** Cell. 130(1):101-12. * co-corresponding authors.

Weitzer, S., Martinez, J. (2007). **The human RNA kinase hClp1 is active on 3' transfer RNA exons and short interfering RNAs.** Nature. 447(7141):222-6

Leuschner, PJ., Ameres, SL., Kueng, S., Martinez, J. (2006). **Cleavage of the siRNA passenger strand during RISC assembly in human cells.** EMBO Rep. 7(3):314-20