CURRICULUM VITAE

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A. Formal Education

1984-1992	High School (Ernst-Moritz-Arndt-Gymnasium), Bonn
1992-1993	Graduate School (Physics), University of Vienna
1993-1995	Medical School University of Vienna,
1995-1999	Medical School Ludwig-Maximilian-University Munich and Technical University of Munich
2000	Graduation MD-PhD
1999-2003	Residency in Neuropathology and General Pathology, University of Bonn

B. Positions, Employments

1993-1995	Undergraduate fellow with Hans Lassmann, Institute for Experimental Neuropathology, Vienna
1996-1998	Doctoral thesis with Rudi Balling, Institute of Mammalian Genetics, GSF Research Center, Munich
1999-2003	Research assistant with Otmar D. Wiestler and Oliver Brüstle, Dept. of Neuropathology and Institute of Reconstructive Neurobiology, Bonn
2003-2008	Postdoctoral fellow with Rudolf Jaenisch, Whitehead Institute for Biomedical Research, Cambridge, USA
2008-	Assistant Professor of Pathology and Institute for Stem Cell Biology and Regenerative Medicine, Stanford University School of Medicine

C. Clinical Electives

1995	1 month Internal Medicine, Wilhelminenspital Vienna/Austria
1997	1 month Neurology, State Hospital, Klagenfurt/Austria
	1 month Clinical Neurophysiology, Great Ormond Street Hospital, London
1998-1999	4 months General Surgery, III. Orden Hospital, Munich
	4 months Intensive Care Unit/ Cardiology, University Hospital Vienna
	4 months Neurology, University Hospital Munich

D. Prizes and Awards

1993-1999	Scholarship of the German National Academic Foundation („Studienstiftung des deutschen Volkes“)
2001	1st Poster price *46th Annual Meeting of the German Society for Neuropathology and Neuroanatomy*, Freiburg/ Germany
2002	1st Poster price *Joint meeting of the Belgian, Dutch and German Societies of Neuropathology*, Aachen/ Germany

2004-2006	Longterm fellowship Human Frontiers Science Program Organisation (HFSP)
2007	Margaret and Herman Sokol Award in Biomedical Research
2008	NIH K99/R00 Pathway to Independence Award
2009	Cozzarelli Prize for outstanding scientific excellence awarded by the National Academy of Sciences U.S.A.
2009	Donald E. and Delia B. Baxter Faculty Scholarship Award
2010	The Ellison Medical Foundation New Scholar in Aging Award

E. Selected Invited Lectures

2007	Tokyo Medical and Dental School, Tokyo, Japan - November 11-14, 2007
2007	Gordon Conference „Stem Cells and Cancer", Big Sky - September 9-14, 2007 (Organizers Michael Clarke, Maarten van Lohuizen)
2007	Abcam Meeting "Stem Cells", Dominican Republic (Organizer Fiona Watt)
2008	Keystone Meeting "Signaling Pathways in Cancer and Development" March 24 - 29, 2008 (Organizers: Juan Carlos Izpisúa Belmonte and Geoffrey M. Wahl)
2008	HHMI Conference Janelia Farm "Chromatin Regulatory Mechanisms in Pluripotency" October 5-8, 2008 (Organizer: Gerald Crabtree)
2008	German Cancer Research Center "Stem Cells and Cancer", Heidelberg, Germany - October 26-28, 2008 (Organizer Otmar Wiestler)
2009	The Parkinson Institute, Sunnyvale, CA - January 27, 2009
2009	Conference "Wiring the Brain" Limerick, Ireland - April 21-24, 2009 (Organizer Kevin Mitchell)
2009	The Burke Institute, White Plains, NY - June 1-3, 2009
2010	UCSF 2010 Stem Cell Seminar Series, San Francisco, CA - February 23, 2010
2010	EMBL Meeting "Stem Cells, Tissue Homeostasis and Cancer", Heidelberg, Germany - May 15-18, 2010 (Organizer Thomas Graf)
2010	ESTOOLS International Symposium "Stem Cells in Biology and Disease", Lisbon Portugal - May 26-28, 2010.
2010	Royan International Twin Congress 2010, Tehran, Iran - September 15-17, 2010
2010	19th annual Developmental Biology Symposium, University of Minnesota - September 20-21, 2010
2010	The New York Stem Cell Foundation's Fifth Annual Translational Stem Cell Conference, New York, NY - October 13, 2010 (Organizer Kevin Eggan)
2010	The Royal Society London, London, United Kingdom - October 18-19, 2010 (Organizer Ian Wilmut)
2010	Frontiers of Stem Cell Biology and Stem Cell Therapy, Tokyo, Japan - November 23-26, 2010
2010	Broad Institute Stanley Center Seminar Series, Cambridge, MA - December 15, 2010
2010	Johns Hopkins University Neuroscience Seminar Series, Baltimore, MD - December 16, 2010
2011	Max-Planck-Institute for Biophysical Chemistry „Frontiers in Biophysics and Biology", Goettingen, Germany, January 4-7, 2011

F. Miscellaneous

Instruments:	violin, viola, piano
1988-1992	composition classes with David Graham and Stefan Hakenberg, Cologne
1988-1998	world premieres of own compositions in Bonn, Cologne and Vienna (including a chamber opera in the Opera House of Cologne)
1991	2nd price in a national composition competetion
1990-present	participation in various choires and chamber music groups

G. Publications

Research publications

Vierbuchen T, Ostermeier A, Pang ZP, Kokubu Y, Südhof TC, **Wernig M.** (2010). Direct conversion of fibroblasts to functional neurons by defined factors. *Nature* Jan 27. [Epub ahead of print]

Kuzmenkin A, Liang H, Xu G, Pfannkuche K, Eichhorn H, Fatima A, Luo H, Saric T, **Wernig M**, Jaenisch R, Hescheler J. (2009). Functional characterization of cardiomyocytes derived from murine induced pluripotent stem cells in vitro. *FASEB J.* 23:4168-80.

Pfannkuche K, Liang H, Hannes T, Xi J, Fatima A, Nguemo F, Matzkies M, **Wernig M**, Jaenisch R, Pillekamp F, Halbach M, Schunkert H, Sarić T, Hescheler J, Reppel M. (2009). Cardiac myocytes derived from murine reprogrammed fibroblasts: intact hormonal regulation, cardiac ion channel expression and development of contractility. *Cell Physiol Biochem.* 24:73-86.

Marson A, Levine SS, Cole MF, Frampton GM, Brambrink T, Johnstone S, Guenther MG, Johnston WK, **Wernig M**, Newman J, Calabrese JM, Dennis LM, Volkert TL, Gupta S, Love J, Hannett N, Sharp PA, Bartel DP, Jaenisch R, Young RA. (2008). Connecting microRNA genes to the core transcriptional regulatory circuitry of embryonic stem cells. *Cell*. 134:521-33.

Wernig M, Lengner CJ, Hanna J, Lodato MA, Steine E, Foreman R, Staerk J, Markoulaki S, Jaenisch R. (2008). A drug-inducible transgenic system for direct reprogramming of multiple somatic cell types. *Nat Biotechnol* Jul 1. [Epub ahead of print]

Meissner A, Mikkelsen TS, Gu H, **Wernig M**, Hanna J, Sivachenko A, Zhang X, Bernstein BE, Nusbaum C, Jaffe DB, Gnirke A, Jaenisch R, Lander ES. (2008). Genome-scale DNA methylation maps of pluripotent and differentiated cells. *Nature* 2008 Jul 6. [Epub ahead of print]

Mikkelsen TS, Hanna J, Zhang X, Ku M, **Wernig M**, Schorderet P, Bernstein BE, Jaenisch R, Lander ES, Meissner A. (2008). Dissecting direct reprogramming through integrative genomic analysis. *Nature* 454:49-55.

Hanna J, Markoulaki S, Schorderet P, Carey BW, Beard C, **Wernig M**, Creyghton MP, Steine EJ, Cassady JP, Foreman R, Lengner CJ, Dausman JA, Jaenisch R. (2008). Direct reprogramming of terminally differentiated mature B lymphocytes to pluripotency. *Cell* 133:250-64.

Wernig M, Zhao JP, Pruszak J, Hedlund E, Fu D, Soldner F, Broccoli V, Constantine-Paton M, Isacson O, Jaenisch R. (2008). Neurons derived from reprogrammed fibroblasts functionally integrate into the fetal brain and improve symptoms of rats with Parkinson's disease. *Proc Natl Acad Sci U S A* 105:5856-61.

Brambrink T, Foreman R, Welstead GG, Lengner CJ, **Wernig M**, Suh H, Jaenisch R. (2008). Sequential expression of pluripotency markers during direct reprogramming of mouse somatic cells. *Cell Stem Cell* 2:151-9.

M. Wernig, A. Meissner, J. Cassady and R. Jaenisch (2008): C-Myc is Dispensable for Direct Reprogramming of Mouse Fibroblasts. *Cell Stem Cell* Dec 13, 2007 (online)

J. Hanna, **M. Wernig**, S. Markoulaki, C. Sun, A. Meissner, J. Cassady, C. Beard, L. Wu, T. Brambrink, T. Townes and R. Jaenisch (2007): Therapy of Sickle Cell Anemia by Autologous Skin Derived Induced Pluripotent Stem Cells. *Science* Nov 29, 2007 (online)

A. Meissner*, **M. Wernig*** and R. Jaenisch (2007): Direct Reprogramming of Genetically Unmodified Fibroblasts into Pluripotent Stem Cells. *Nat biotech* Oct; 25(10):1177-81
* equal contribution

T.S. Mikkelsen, M. Ku, D.B. Jaffe, B. Issac, E. Lieberman, Giannoukos G, Alvarez P, Brockman W, Kim TK, Koche RP, Lee W, Mendenhall E, O'donovan A, Presser A, Russ C, Xie X, A.Meissner, **M. Wernig** , R. Jaenisch, C. Nusbaum, E.S.

Lander, B.E. Bernstein (2007): Genome-wide maps of chromatin state in pluripotent and lineage-committed cells. *Nature* 448:553-60

M. Wernig, A. Meissner, R. Foreman, T. Brambrink, M. Ku, K. Hochedlinger, B.E. Bernstein and R. Jaenisch (2007). In vitro reprogramming of fibroblasts into a pluripotent ES cell-like state. *Nature* 448:318-24

L.A. Boyer, K. Plath, J. Zeitlinger, T. Brambrink, L.A. Medeiros, T.I. Lee, S.S. Levine, **M. Wernig**, A. Tajonar, M.K. Ray, G.W. Bell, A.P. Otte, M. Vidal, D.K. Gifford, R.A. Young, R. Jaenisch (2006). Polycomb complexes repress developmental regulators in murine embryonic stem cells. *Nature* 441:349-53.

B. E. Bernstein, T. S. Mikkelsen, X. Xie, M. Kamal, D. J. Huebert, J. Cuff, B. Fry, A. Meissner, **M. Wernig**, K. Plath, R. Jaenisch, A. Wagschal, R. Feil, S. L. Schreiber and E. S. Lander. (2006). A bivalent chromatin structure marks key developmental genes in embryonic stem cells. *Cell* 125:315-26

G. Wernig, V. Janzen, R. Schäfer, M. Zweyer, U. Knauf, O. Hoegemeier, R. R. Mundegar, S. Garbe, S. Stier, T. Franz, **M. Wernig** and A. Wernig. (2005). The vast majority of bone-marrow-derived cells integrated into mdx muscle fibers are silent despite long-term engraftment. *Proc Natl Acad Sci USA* 102:11852-7.

M. Wernig, F. Benninger, K. L. Tucker, H. Büssow, H. Beck and O. Brüstle (2004). Functional Integration of Embryonic Stem Cell-Derived Neurons In Vivo. *J Neurosci* 24:5258-68

J. Steffel, **M. Wernig**, U. Knauf, S. Kumar, O.D. Wiestler, A. Wernig and O. Brüstle (2003). Migration and Differentiation of Myogenic Precursors Following Transplantation into the Developing Rat Brain. *Stem Cells* 21:181-89

F. Benninger, H. Beck, **M. Wernig**, K. L. Tucker, O. Brüstle and B. Scheffler (2003). Functional Integration of Embryonic Stem Cell-Derived Neurons in Hippocampal Slice Cultures. *J Neurosci* 23:7075-83

M. Wernig, K.L. Tucker, V. Gornik, A. Schneiders, R. Buschwald, O.D. Wiestler, Y.-A. Barde and O. Brüstle (2002). Tau EGFP Embryonic Stem Cells: An Efficient Tool for Lineage Selection and Transplantation. *J Neurosci Res* 69:918-924

S.C. Zhang, **M. Wernig**, I. Duncan, O. Brüstle and J. Thomson (2001), In vitro differentiation of transplantable neural precursors from human embryonic stem cells. *Nat Biotechnol* 19:1129-33.

A. Faiella*, **M. Wernig***, G.G. Consalez, U. Hostik, C. Hofmann, E. Hustert, E. Boncinelli, R. Balling and J.H. Nadeau (2000). A mouse model for valproate teratogenicity: parental effects, homeotic transformations, and altered HOX expression. *Hum Mol Genet* 9:227-236.

Review article

M. Wernig and O. Brüstle (2002). Fifty ways to make a neuron: shifts in stem cell hierarchy and their implications for neuropathology and CNS repair. *J Neuropathol Exp Neurol* 61:101-10.

Book chapter

M. Wernig, B. Scheffler und O. Brüstle (2003). Medizinische Perspektiven der Stammzellforschung (German) in: Ganten und Ruckpaul (Hrsg.) Molekular- und zellbiologische Grundlagen der Molekularen Medizin, 2. Auflage. Springer-Verlag Berlin Heidelberg