

Carmen Birchmeier

Max Delbrück Center for Molecular Medicine (MDC)
Developmental Biology/Signal Transduction
Robert-Rössle-Str. 10 | D-13125 Berlin
Phone: +49 (0)30 9406-2403
E-mail: cbirch@mdc-berlin.de



Curriculum vitae

- since 2009 Member, Board of Directors, NeuroCure Cluster of Excellence
- since 2002 Coordinator/Chair, Max Delbrück Center for Molecular Medicine Neuroscience Program
- since 2002 Professor (C4-S), Medical Faculty of the Freie Universität Berlin and the Charité - Universitätsmedizin Berlin
- since 1995 Head, research group, Max Delbrück Centre for Molecular Medicine Berlin
- 1989 – 1995 Head, independent junior group, MDL/MPG, Cologne
- 1986 – 1989 Staff scientist, Cold Spring Harbor Laboratory, NY
- 1984 – 1986 Postdoc, Cold Spring Harbor Laboratory, NY
- 1979 – 1984 PhD thesis, University of Zürich
- 1974 – 1979 Studies in Chemistry/Biochemistry, University of Konstanz; University of California, San Diego; ETH Zürich. Diploma/Masters ETH Zürich

Research fields

- Main field: Developmental biology, mouse genetics
- Current research interest: Development of the nervous system and muscle

Activities in the scientific community, honors, awards

- since 2009 Member and Deputy Chairperson, German Research Foundation Fachkollegium “Grundlagen der Medizin”
Editor, Developmental Biology
- since 2005 Deputy speaker, Collaborative Research Center (SFB) 665; “Developmental disturbances in the nervous system”
- 2002 Leibniz Prize, German Research Foundation (DFG)
- 2001 Member, European Molecular Biology Organization (EMBO)
- 1989 Bennisen Förderpreis des Landes Nordrhein-Westfalen

Selected publications

Trimbuch, T*, Beed, P*, Vogt, J*, Schuchmann, S, Maier, N, Kintscher, M, Breustedt, J, Schuelke, M, Streu, N, Kieselmann, O, Brunk, I, Laube, G, Strauss, U, Battenfeld, A, Wende, H, Birchmeier, C, Wiese, S, Sendtner, M, Kawabe, H, Kishimoto-Suga, M, Brose, N, Baumgart, J, Geist, B, Aoki, J, Savaskan, NE, Brauer, AU, Chun, J, Ninnemann, O, Schmitz, D* and Nitsch, R*. Synaptic PRG-1 modulates excitatory transmission via lipid phosphate-mediated signaling. *Cell*. 2009; 138, 1222-35. | *equal contribution

Storm, R, Cholewa-Waclaw, J, Reuter, K, Brohl, D, Sieber, M, Treier, M, Muller, T and Birchmeier, C. The bHLH transcription factor Olig3 marks the dorsal neuroepithelium of the hindbrain and is essential for the development of brainstem nuclei. *Development*. 2009; 136, 295-305.

Grossmann, KS, Wende, H, Paul, FE, Cheret, C, Garratt, AN, Zurborg, S, Feinberg, K, Besser, D, Schulz, H, Peles, E, Selbach, M, Birchmeier, W and Birchmeier, C. The tyrosine phosphatase Shp2 (PTPN11) directs Neuregulin-1/ErbB signaling throughout Schwann cell development. *Proc Natl Acad Sci U S A*. 2009; 106, 16704-9.

Wildner, H, Gierl, MS, Strehle, M, Pla, P and Birchmeier, C. Insm1 (IA-1) is a crucial component of the transcriptional network that controls differentiation of the sympatho-adrenal lineage. *Development*. 2008; 135, 473-81.

Sieber, MA, Storm, R, Martinez-de-la-Torre, M, Muller, T, Wende, H, Reuter, K, Vasyutina, E and Birchmeier, C. Lbx1 acts as a selector gene in the fate determination of somatosensory and viscerosensory relay neurons in the hindbrain. *J Neurosci*. 2007; 27, 4902-9.

Willem, M, Garratt, AN, Novak, B, Citron, M, Kaufmann, S, Rittger, A, DeStrooper, B, Saftig, P, Birchmeier, C and Haass, C. Control of peripheral nerve myelination by the beta-secretase BACE1. *Science*. 2006; 314, 664-6.

Wildner, H, Muller, T, Cho, SH, Brohl, D, Cepko, CL, Guillemot, F and Birchmeier, C. dILA neurons in the dorsal spinal cord are the product of terminal and non-terminal asymmetric progenitor cell divisions, and require Mash1 for their development. *Development*. 2006; 133, 2105-13.

Muller, T, Anlag, K, Wildner, H, Britsch, S, Treier, M and Birchmeier, C. The bHLH factor Olig3 coordinates the specification of dorsal neurons in the spinal cord. *Genes Dev*. 2005; 19, 733-43.

Muller, T, Brohmann, H, Pierani, A, Heppenstall, PA, Lewin, GR, Jessell, TM and Birchmeier, C. The homeodomain factor *lhx1* distinguishes two major programs of neuronal differentiation in the dorsal spinal cord. *Neuron*. 2002; 34, 551-62.

Riethmacher, D, Sonnenberg-Riethmacher, E, Brinkmann, V, Yamaai, T, Lewin, GR and Birchmeier, C. Severe neuropathies in mice with targeted mutations in the ErbB3 receptor. *Nature*. 1997; 389, 725-30.