

## Constance Scharff

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### Curriculum vitae

since 2004	Professor (C4), Animal Behavior, Department of Biology, Chemistry, and Pharmacy, Freie Universität Berlin
2002 - 2007	Associate Professor, Max Planck Institute for Molecular Genetics, Berlin
1998 - 2001	Assistant Professor, The Rockefeller University, New York
1994 - 1998	Postdoctoral associate (Prof. Fernando Nottebohm), The Rockefeller University, New York
1991 - 1993	Chercheur associé (Prof. Nicole LeDouarin), Institut d'Embryologie Cellulaire et Moléculaire, Paris
1986 - 1991	PhD thesis (Advisor: Prof. Fernando Nottebohm), Department of Animal Behavior at The Rockefeller University, New York
1982 - 1986	Graduate studies in Neurobiology and Behavior, Adelphi University
1979 - 1982	Undergraduate studies in Biology, Marburg University

### Research fields

Our group researches the cellular and molecular neurobiology of learned behaviors with the following major areas:

- Cellular and molecular mechanisms of vocal communication and its disorders
- Deep homologies in speech/language and animal communication; molecular evolution of gene networks relevant for vocal learning and its disorders
- Mechanisms and functions of adult neurogenesis

### Activities in the scientific community, honors, awards

since 2016	Member Stiftungsrat Schering Stiftung
since 2015	Founding Member Einstein Center for Neuroscience
2013-2015	President of German Zoological Society (DZG)
since 2014	Mentor in the mentoring-program "movement", University Bielefeld
since 2012	Elected to the Berlin Brandenburgische Akademie der Wissenschaften (BBAW)
since 2012	Member of Scientific Committee/College for Life Sciences
2011 - 2013	Acting Director, Institute of Biology, Freie Universität Berlin
2010 - 2013	Faculty Council Member, Department Biology, Chemistry, and Pharmacy, Freie Universität Berlin
since 2010	Mentor, Studienstiftung des deutschen Volkes
since 2008	Faculty Council Member, Institute of Biology, Freie Universität Berlin
since 2008	Vice President, German Zoological Society (DZG)
since 2008	Board member, Elsa Neumann Foundation
since 2007	Mentor, ProFiL: Berlin Program for the Professionalization of Women in Research and Teaching

since 2007	Scientific Advisory Board, Urania Berlin
2008	Prize for Excellence in Teaching, Institute of Biology, Freie Universität Berlin
1990	Donald L. Bleitz Research Award, American Ornithologist Union
1979 - 1984	Scholar, Studienstiftung des deutschen Volkes

## Selected publications

Honarmand M, Thompson CK, Schatton A, Kipper S, Scharff C. Early developmental stress negatively affects neuronal recruitment to avian song system nucleus HVC. *Dev Neurobiol.* 2016;76(1):107-18.

Mendoza E, Tokarev K, During DN, Retamosa EC, Weiss M, Arpenik N, Scharff C. Differential coexpression of FoxP1, FoxP2, and FoxP4 in the Zebra Finch (*Taeniopygia guttata*) song system. *J Comp Neurol.* 2015;523(9):1318-40.

Mendoza E, Colomb J, Rybak J, Pfluger HJ, Zars T, Scharff C, Brembs B. *Drosophila* FoxP mutants are deficient in operant self-learning. *PLoS One.* 2014;9(6):e100648.

Kubikova L, Bosikova E, Cvikova M, Lukacova K, Scharff C, Jarvis ED. Basal ganglia function, stuttering, sequencing, and repair in adult songbirds. *Sci Rep.* 2014;4:6590.

Thompson CK, Schwabe F, Schoof A, Mendoza E, Gampe J, Rochefort C, Scharff C. Young and intense: FoxP2 immunoreactivity in Area X varies with age, song stereotypy, and singing in male zebra finches. *Front Neural Circuits.* 2013;7:24.

Murugan M, Harward S, Scharff C, Mooney R. Diminished FoxP2 levels affect dopaminergic modulation of corticostriatal signaling important to song variability. *Neuron.* 2013;80(6):1464-76.

Warren WC, Clayton DF, Ellegren H, Arnold AP, Hillier LW, Kunstner A, Searle S, White S, Vilella AJ, Fairley S, Heger A, Kong L, Ponting CP, Jarvis ED, Mello CV, Minx P, Lovell P, Velho TA, Ferris M, Balakrishnan CN, Sinha S, Blattl C, London SE, Li Y, Lin YC, George J, Sweedler J, Southey B, Gunaratne P, Watson M, Nam K, Backstrom N, Smeds L, Nabholz B, Itoh Y, Whitney O, Pfenning AR, Howard J, Volker M, Skinner BM, Griffin DK, Ye L, McLaren WM, Flicek P, Quesada V, Velasco G, Lopez-Otin C, Puente XS, Olender T, Lancet D, Smit AF, Hublely R, Konkel MK, Walker JA, Batzer MA, Gu W, Pollock DD, Chen L, Cheng Z, Eichler EE, Stapley J, Slate J, Ekblom R, Birkhead T, Burke T, Burt D, Scharff C, Adam I, Richard H, Sultan M, Soldatov A, Lehrach H, Edwards SV, Yang SP, Li X, Graves T, Fulton L, Nelson J, Chinwalla A, Hou S, Mardis ER, Wilson RK. The genome of a songbird. *Nature.* 2010;464(7289):757-62.

Bolhuis JJ, Okanoya K, Scharff C. Twitter evolution: converging mechanisms in birdsong and human speech. *Nat Rev Neurosci.* 2010;11(11):747-59.

Haesler S, Rochefort C, Georgi B, Licznarski P, Osten P, Scharff C. Incomplete and inaccurate vocal imitation after knockdown of FoxP2 in songbird basal ganglia nucleus Area X. *PLoS Biol.* 2007;5(12):e321.

Scharff C, Kirn JR, Grossman M, Macklis JD, Nottebohm F. Targeted neuronal death affects neuronal replacement and vocal behavior in adult songbirds. *Neuron.* 2000;25(2):481-92.