Sarah Shoichet

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Curriculum vitae

2010	Associate professor (tenure-track) - Molecular Neurobiology, Charité (Berlin)
2008 – 2009	Rahel-Hirsch postdoctoral fellow, Neuroscience Research Center, Charité (Berlin)
2000 – 2007	Ph.D. and junior postdoc (including maternity leave 2005-2006) Max Planck Institute for Molecular Genetics (Berlin), Dept. Prof. H.H. Ropers, Neurogenetics Research Group
1998 – 2000	Research assistant, Dana Farber Cancer Institute, Boston (USA)
1998 – 1999	Part-time studies, Harvard Extension School (Cellular & Molecular Biology, Genetics)
1996 – 1997	Research assistant, NeuroVir Inc., Vancouver (Canada)
1992 – 1995	B.Sc. (Physics) Queen's University, Kingston (Canada)

Research fields

Our group is active in the field of molecular neurobiology and genetics with primary interests in

- Molecular mechanisms underlying neurodevelopmental disorders such as autism, intellectual disability, and epilepsy
- Post-translational modifications of neuronal proteins and subsequent effects on protein-protein interactions and on neuron development and function

Activities in the scientific community, honors, awards

2013-present	Charité-Universitätsmedizin Berlin – Teaching Undergraduate Biochemistry
2008-present	International Graduate Program Medical Neurosciences, Charité (Berlin): Neurogenetics 2008-2013 (Teaching Award, 2nd prize 2012-2013) Scientific Writing (course design and lecture 2009-2012)
2012-2014	Berlin School of Mind and Brain Teaching Clinical Neuroscience – Autism and Related Neurodevelopmental Disorders
2008	Rahel-Hirsch Stipend, Charité (Berlin, first among successful applicants)
2005	Ph.D. Thesis Awards: ▪ Berlin Academic Society (Berliner Wissenschaftliche Gesellschaft Promotionspreis; 2,500.00 EUR) ▪ Max Planck Society Otto Hahn Medal (5,000.00 EUR)
2003	International Workshop on Fragile X Syndrome and XLMR (Cyprus): ▪ Conference Award 'Best Presented Scientific Work'
1992	University Entrance Scholarships (Canada): ▪ Canada Scholarship for Scientists and Engineers (tuition covered) ▪ Queen's University Entrance Scholarship (living expenses covered)

Selected publications

Schuster S, Rivalan M, Strauss U, Stoenica L, Trimbuch T, Rademacher N, Parthasarathy S, Lajko D, Rosenmund C, Shoichet SA, Winter Y, Tarabykin V, Rosario M. NOMA-GAP/ARHGAP33 regulates synapse development and autistic-like behavior in the mouse. Mol Psychiatry. 2015;20(9):1120-31.

Rademacher N, Kunde SA, Kalscheuer VM, Shoichet SA. Synaptic MAGUK multimer formation is mediated by PDZ domains and promoted by ligand binding. Chem Biol. 2013;20(8):1044-54.

Kunde SA, Rademacher N, Tzschach A, Wiedersberg E, Ullmann R, Kalscheuer VM, Shoichet SA. Characterisation of de novo MAPK10/JNK3 truncation mutations associated with cognitive disorders in two unrelated patients. Hum Genet. 2013;132(4):461-71.

Schmeisser MJ, Ey E, Wegener S, Bockmann J, Stempel AV, Kuebler A, Janssen AL, Udvardi PT, Shiban E, Spilker C, Balschun D, Skryabin BV, Dieck S, Smalla KH, Montag D, Leblond CS, Faure P, Torquet N, Le Sourd AM, Toro R, Grabrucker AM, Shoichet SA, Schmitz D, Kreutz MR, Bourgeron T, Gundelfinger ED, Boeckers TM. Autistic-like behaviours and hyperactivity in mice lacking ProSAP1/Shank2. Nature. 2012;486(7402):256-60.

Lesch KP, Selch S, Renner TJ, Jacob C, Nguyen TT, Hahn T, Romanos M, Walitza S, Shoichet S, Dempfle A, Heine M, Boreatti-Hummer A, Romanos J, Gross-Lesch S, Zerlaut H, Wultsch T, Heinzel S, Fassnacht M, Fallgatter A, Allolio B, Schafer H, Warnke A, Reif A, Ropers HH, Ullmann R. Genome-wide copy number variation analysis in attention-deficit/hyperactivity disorder: association with neuropeptide Y gene dosage in an extended pedigree. Mol Psychiatry. 2011;16(5):491-503.

Shoichet SA, Duprez L, Hagens O, Waetzig V, Menzel C, Herdegen T, Schweiger S, Dan B, Vamos E, Ropers HH, Kalscheuer VM. Truncation of the CNS-expressed JNK3 in a patient with a severe developmental epileptic encephalopathy. Hum Genet. 2006;118(5):559-67.

Shoichet SA, Kunde SA, Viertel P, Schell-Apacik C, von Voss H, Tommerup N, Ropers HH, Kalscheuer VM. Haploinsufficiency of novel FOXG1B variants in a patient with severe mental retardation, brain malformations and microcephaly. Hum Genet. 2005;117(6):536-44.

Shoichet SA, Hoffmann K, Menzel C, Trautmann U, Moser B, Hoeltzenbein M, Echenne B, Partington M, Van Bokhoven H, Moraine C, Fryns JP, Chelly J, Rott HD, Ropers HH, Kalscheuer VM. Mutations in the ZNF41 gene are associated with cognitive deficits: identification of a new candidate for X-linked mental retardation. Am J Hum Genet. 2003;73(6):1341-54.

Kalscheuer VM, Freude K, Musante L, Jensen LR, Yntema HG, Gecz J, Sefiani A, Hoffmann K, Moser B, Haas S, Gurok U, Haesler S, Aranda B, Nshedjan A, Tzschach A, Hartmann N, Roloff TC, Shoichet S, Hagens O, Tao J, Van Bokhoven H, Turner G, Chelly J, Moraine C, Fryns JP, Nuber U, Hoeltzenbein M, Scharff C, Scherthan H, Lenzner S, Hamel BC, Schweiger S, Ropers HH. Mutations in the polyglutamine binding protein 1 gene cause X-linked mental retardation. Nat Genet. 2003;35(4):313-5.

Shoichet SA, Baumer AT, Stamenkovic D, Sauer H, Pfeiffer AF, Kahn CR, Muller-Wieland D, Richter C, Ristow M. Frataxin promotes antioxidant defense in a thiol-dependent manner resulting in diminished malignant transformation in vitro. Hum Mol Genet. 2002;11(7):815-21.