

ERIN MARGARET SCHUMAN

PERSONAL

Birth date: May 15, 1963
Current status: Director, Professor
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Family status: Married, 3 daughters

EDUCATION

Ph.D.	Neuroscience	Princeton University	January, 1990
B.A.	Psychology	Univ. of Southern Cal.	May, 1985
	Neural Systems & Behavior	Marine Biological Lab	Summer, 1988

AWARDS AND HONORS

2017	Elected Member Academia Europaea
2017	Elected Member German National Academy of Sciences Leopoldina
2017	European Research Council, Advanced Investigator Grant
2016	Forbes Lectures, Marine Biological Laboratory
2014	Elected EMBO member
2013	Alexander Cruickshank Lecture, Gordon Research Conference
2013	Hodgkin-Huxley-Katz Prize
2013	Norbert Elsner Lecture, German Neuroscience Society
2011	European Research Council, Advanced Investigator Grant
2008	Gerard Lecture, University of California, Irvine
2005	Howard Hughes Medical Institute Investigator
2002	Howard Hughes Medical Institute Associate Investigator
1997	Howard Hughes Medical Institute Assistant Investigator
1996	Ferguson Biology Undergraduate Teaching Prize
1996-1998	Beckman Young Investigator Award
1995	Ferguson Biology Graduate Teaching Prize
1995	American Association of University Women Emerging Scholar
1995-1999	Pew Biomedical Scholar
1994-1998	John Merck Scholar
1994-1996	Alfred P. Sloan Research Fellow
1994-1996	McKnight Scholars Award (declined)
1991	Katherine McCormick Foundation fellow
1990	NIH postdoctoral fellowship
1986	NIH predoctoral fellow
1985	Phi Beta Kappa, graduation with honors
1985	Sigma Xi Outstanding Undergraduate Research Award

EMPLOYMENT

2009-	Director, Max Planck Institute for Brain Research, Frankfurt
2013-2016	Managing Director, Max Planck Institute for Brain Research
2015-present	Professor, Biology, Goethe University Frankfurt
2004-2010	Professor, Caltech, Biology
2007-2009	Option Representative, Division of Biology, Caltech
2008	INSERM-Visiting Faculty, Ecole Normale Superieure, Paris
2005	Visitor in Biology, Russ Fernald's lab, Stanford University
2004-2009	Investigator, HHMI
2002-2004	Associate Investigator, Howard Hughes Medical Institute
2000-2006	Executive Officer in Biology, Caltech
1999-2004	Associate Professor, Caltech, Biology
1997-2002	Assistant Investigator, Howard Hughes Medical Institute
1993-1999	Assistant Professor, Caltech, Biology
1990-1993	Postdoctoral Fellow, Stanford University, Mol-Cell Physiology
1990	Postdoctoral fellow, Princeton University, Neuroscience/Psychology
1985-1990	Graduate student, Princeton University, Neuroscience/Psychology

Advisory/Editorial Boards

2018	Brain Research Institute, HiFo, University of Zurich, SAB
2017	External Evaluation Board, IBENS, Paris
2017-	European Training Network ZENITH
2017-	Simons Initiative for the Developing Brain, Univ. of Edinburgh, UK
2017-	Center for Integrative Biology, College de France
2016-	Editorial Board, Neuron
2016-	Frankfurt International School, Board of Trustees
2016-	Editorial Board, Annual Review of Cell and Developmental Biology
2016	11 th RIKEN Brain Science Advisory Council (BSAC), Japan
2016	Advisory Committee, Harvard University, Molecular-Cellular Biology
2016	DFG (German Research Foundation) Review Board (Priority Program)
2015-	Neurobiology Advisory Group, EMBL Monterotondo
2015-	Scientific Advisory Board, NERF Neuroelectronics Research Flanders
2015-2017	Frankfurt International School Advisory Council
2014-	FENS Brain Conferences Committee (BCC)
2014- 2017	Gruber Neuroscience Prize Committee
2014-	Chair, Scientific Advisory Board, MRC Centre for Dev Neurobiology (UK)
2014-	Associate Editor of Neuroscience Research (Japan)
2014	10 th RIKEN Brain Science Advisory Council (BSAC), Saitama, Japan
2013-2016	Scientific Advisory Committee, Foundation for Dystonia Research
2013	Scientific Advisory Board, VIB Center for the Biology of Disease
2013-2016	Axelrod Neuroscience Prize Selection Committee
2011-2014	Panel Member, ERC Starting Grant Selection Committee
2011-	Scientific Advisory Board, Kavli Institute for Systems Neuroscience
2011-2016	Editorial Board, Learning & Memory
2010-2013	Society for Neuroscience International Affairs Committee
2010-2015	Wellcome Trust Core Interview Panel
2010-2014	Scientific Advisory Board, Neuroscience Institute, Helsinki

2009- Associate Editor, Current Opinion in Neurobiology
2008 Advisory Committee, Harvard University, Molecular-Cellular Biology
2004-2007 NIH Study section regular member, SYN

Meeting Organization

2017 Co-Organizer, Dendrites 2018, Crete, Greece
2016- The Brain Conferences Committee, Spring Brain Conference 2016
2013-2015 Chair and Organizer, RNA Localization Conference 2015, Crete, Greece
2013-2014 Organizer Janelia High-throughput Sequencing for Neuroscience
2012 FENS Forum (2014) Program Committee
2011 Co-Chair, Gordon Conference on Dendrites
2009 Co-Organizer, Cell-adhesion symposium, Cell Biology meeting
2009 Organizer, JFRC Protein Translation at the Synapse
2007 Organizer, JFRC Protein Translation at the Synapse
2003 Co-Chair, Cold Spring Harbor Meeting on Learning and Memory
2001 Chair, Gordon Conference on Neural Plasticity
2001 Co-Organizer, Keystone Meeting on the Hippocampus and Synapses
1998 Chair, Gordon Conference on Neural Plasticity

Teaching

2011-present IMPRS Lecturer
2006-2009 Co-Instructor, Bi129, Cellular Dynamics
2004-2009 Co-Instructor, Bi162, Cellular Neurophysiology
2003-2009 Guest Lecturer, Bi150 and Bi156, Neurobiology
1998-2003 Co-Instructor, Bi260, How to give a seminar
1996-1998 Co-Director, Brain Development and Function Course, CSHL
1995 Faculty, Neural Systems and Behavior, Marine Biological Laboratory
1994-2002 Co-Instructor, Bi150, Neurobiology
1994-2005 Co-Instructor, Bi80, Current Research

Europe Committees/Memberships/Leadership

2018- Jury member Hermann Neuhaus Prize for Postdocs in the MPG
2016 Horizons 2020 Grant Panel Reviewer
2016- PI, DFG CRC, Resilience
2016- EMBO Long-term Postdoc Fellowship Committee
2016- FENS Brain Conferences Committee
2012- MPI for Molecular Genetics Search Committee
2012- Working Group to support female scientists in the MPG
2011-2014 MPG Perspective's Committee
2011- CAESAR Search Committee
2011-2015 IMPRS for Neural Circuits, Spokesperson
2010 Max Planck 20X2020 Initiative Author
2011 Biology of Sleep Search Committee
2011- PI, DFG CRC 1080, Homeostasis
2011- PI, Cluster of Excellence, Macromolecular Complexes
2010- PI, DFG CRC 902, RNA regulation
2010-2011 Max Planck Florida Institute
2010 MPG 2010+ Co-Author

Caltech Committee Work

2007-2009	Admissions Task Force
2006-2009	Chair, Genetics of Neural Circuits and Behavior
2006-2009	Institute Convocations committee
2006-2009	Faculty Committee on Recruiting and Retaining Women and Minority Faculty
2005-2009	Cellular and molecular biology search committee
2006-2009	Behavior & Genetics Search committee chair
2003-2009	Target of Opportunity committee
2000-2009	Division of Biology Postdoctoral Fellowship committee
2002-2009	Cellular & Molecular Neuroscience Qualifying Exam chair
2002-2006	Behavior & Genetics Search Committee
2003	Faculty Board nominating Committee
2002	Child Care Committee
2001-2004	Faculty Board
2003-2004	Bioengineering Search Committee

Invited Talks at Universities, Research Centers and Conferences

2018

Edinburgh Neuroscience Day 2018, Annual Distinguished Lecture, Univ Edinburgh
DFG Conference "RNA Transport Meeting 2018", Düsseldorf, Germany
Genomics & Systems Biology VIII at NYU Abu Dhabi, UAE

2017

Keynote Lecture, EMBL Graduation Ceremony, Heidelberg, Germany
Cell Symposia: Big questions in Neuroscience, Arlington, VA
Bordeaux Neurocampus Inaugural Conference, France
Janelia Farm Conference on Cell Biology of Neurons & Circuits, Ashburn, VA
Brain Prize Symposium, Lund, Sweden
ISN-ESN Symposium, Paris, France
RNA Conference on Localization and Local Translation, Barga, Italy
FENS-IBRO Cajal Course, Champalimaud Center for the Unknown, Lisbon, Portugal
Stockholm Nordic Neuroscience Meeting, Stockholm, Sweden
GRC on Dendrites, Il Ciocco, Barga, Italy
King's College, Wohl Imaging Center Opening Symposium, London, UK
MPI-Cambridge Neuroscience Meeting, Berlin, Germany

2016

EMBO/EMBL Symposium: Complex Life of mRNA, Heidelberg, Germany
Soc. for Neurochemistry, INC-JCN Flagship School, Alpbach, Austria,
Caltech, Norman Davidson Anniversary Lecture, Pasadena, CA
DENDRITES 2016, Keynote Lecture, Crete, Greece
UCL, London, UK
MIT, Picower Institute for Learning and Memory, Cambridge, MA
Neuroscience School of Advanced Studies, Bressanone, Italy
Forbes Lectures, Marine Biological Laboratory, Woodshole MA
University of Göttingen Medical Center, Göttingen, Germany
IGMM Edinburgh, Scotland

2015

Science for Life Symposium, Utrecht University, Netherlands
Society for Neuroscience Symposium on Dendrite Development & Function, USA
16th National Congress of the Spanish Society of Neuroscience, Granada, Spain
Sunposium, MPI Florida, Jupiter USA
IMP-IMBA-BI Meeting, Vienna, Austria
Brandeis University, Bauer Distinguished Lecturer, Waltham, MA
University of Massachusetts, Worcester, MA
Adrian Lecture, University of Cambridge, UK
Max Planck Institute for Psychiatry, Munich, Germany
5th European Synapse Meeting, Bristol, UK,
Zebrafish Workshop, Janelia Farm Research Campus, Ashburn, VA
FMI for Biomedical Research, Basel, Switzerland

2014

EMBL-La Sapienza Seminar Series, Monterotondo, Rome, Italy
Freiburg University, Germany
School of Biosciences, Cardiff University, Wales
Collège de France, Paris, France
15th EMBL/EMBO Science and Society Conference, Chair, Heidelberg, Germany
Janelia Conference on High-Throughput Sequencing for Neuroscience, Ashburn, VA
Translational Control Meeting Wellcome Trust, Keynote Address, London, UK

2013

Baylor College of Medicine, Houston, Texas, USA
The University of Texas at Austin, USA, Winter
Bordeaux Neurocampus, Bordeaux, France,
DGIST Distinguished Lecture, Daegu, Korea
Rockefeller University, NY, NY
Université Paris Descartes, Paris, France
ICM, Paris, France
Max Planck Institute for Medical Research, Heidelberg, Germany
TEDx: The Brain, Caltech, Pasadena CA
LTP Meeting by the Royal Society, London, UK
IFM International Colloquium 2013, Paris, France
10th Horizons in Molecular Biology Symposium, Göttingen, Germany
Hodgkin-Huxley-Katz Prize Lecture, IUPS, Birmingham, UK
Gordon Research Conference on Dendrites, Les Diablerets, Switzerland
10th Meeting of the German Society of Neuroscience, Göttingen, Germany
107th International Titisee Conference, Titisee, Germany

2012

Neuroscience Seminar, Max Planck Institute Florida, Jupiter, Florida
CNS Colloquium, NYU, New York,
Research Institute of Molecular Pathology, Vienna, Austria
IBMB Barcelona, Spain
Instituto de Neurociencias, Alicante, Spain,
Centro de Biología Molecular, Madrid, Spain
Institute of Neuroscience, Newcastle-upon-Tyne, UK
Centre for Integrative Physiology, Edinburgh, Scotland
MRC LMB, Cambridge, UK,
EMBL, Heidelberg, Germany

Brain Research Institute, University of Zurich, Switzerland
Champalimaud Neuroscience Symposium, Lisbon, Portugal
Kavli Prize Symposium on Neuroscience 2012, Bergen, Norway
RIKEN BSI Summer Program 2012, Japan,
14th International Winter Neuroscience Conference, Soelden, Austria
Janelia Dendrites: Substrates for Information Processing, Ashburn, VA
Molecular Neurobiology, Weizmann Institute of Science, Rehovot, Israel
2011

VIB, K.U. Leuven & Vesalius Research Center, Leuven, Belgium
Single-Unit Human Recordings, New York University, NY
Max Delbrück Center for Molecular Medicine, Berlin, Germany
Pharmazentrum Frankfurt, University Hospital Goethe-University Frankfurt, Germany
Society for Neuroscience Special Lecture, SfN Meeting, Washington DC
Nobel Forum Lecture, Karolinska Institutet, Stockholm, Sweden
Ascona Neuronal Circuits Meeting, Ascona, Switzerland,
ISN 2011 Meeting, Athens, Greece
IEEE • ICDL • EPIROB 2011, Keynote lecture Frankfurt, Germany
EMBO Conf. on Intracellular RNA Localization & Localized Translation, Barga, Italy
8th IBRO World Congress of Neuroscience, Florence, Italy
34th German Society for Cell Biology (DGZ), Bonn, Germany
Translational Regulation in the CNS, German SfN, Göttingen, Germany
University of Oxford, Physiology, Anatomy and Genetics, Oxford, UK
2010

Stanford University, Molecular and Cellular Physiology, Palo Alto, CA
Institute for Cell Biology and Neuroscience, Goethe-University, Frankfurt, Germany
Harvard, Center for Brain Science, Boston, MA
Europ. Symp. on Imaging Structure & Function in the Zebrafish Brain, Lisbon, Portugal
XIIth Magdeburg Neurobiological Symposium, Magdeburg
FENS Forum, Amsterdam, The Netherlands
GRC on the Cell Biology of the Neuron, Waterville Valley Resort, NH
AREADNE , Encoding & Decoding of Neural Ensembles, Santorini, Greece
Ribosomes Keynote, Orvieto, Italy
1st Francis Crick Symposium on Neuroscience, Suzhou, China
Janelia Farm Conference on Structural Plasticity in the Mammalian Brain, Ashburn, VA
SFB Initiative Mainz-Frankfurt on Mechanisms of Molecular Adaptation, Mainz,
Germany
Max Planck Unit for Structural Molecular Biology, Hamburg, Germany
Bernstein Center for Computational Neuroscience, Berlin, Germany
Neuroscience Center Niederrad, Frankfurt, Germany
SFB/TR 3, University Hospital, Bonn, Germany
2009

MRC Laboratory for Molecular Cell Biology, UCL, London, UK
Biozentrum, Basel, Switzerland,
Allen Institute, Seattle, WA
Janelia Meeting on Dendritic Translation, Ashburn, VA
Gordon Conference on Cell Adhesion,
FASEB Meeting on RNA translation
Gordon Conference on Dendrites, Ventura, CA

Learning and Memory meeting, UCI, Irvine, CA
Case Western University, Case Western, Ohio
2008

UCI, Gerard Lecture, Irvine, CA
Hippocampus Conference, Spitsbergen Norway
Hinxtton meeting, Cambridge, UK
Bergamo Scienza, Keynote public lecture, Bergamo, IT
University of Michigan, Agranoff Lecture, MA
Ecole Normale Superieure, Paris, France
2007

University of Pennsylvania Children's Hospital, Philadelphia, PA
CSHL and EMBL Protein Translation, Keynote address, Heidelberg, Germany
Protein Translation at the Synapse, Janelia Farm, Ashburn, VA
Mass Spectrometry in the Health & Life Sciences, San Francisco, CA
Gordon Research Conference on Neural Circuits
Banbury Center Fragile X meeting, Cold Spring Harbor, NY
Johns Hopkins University, Neuroscience, Baltimore, MA
USC, Zilkha Neurogenetics Institute, LA, CA
University of Minnesota, Department of Neuroscience, Minneapolis, MN
Scripps Research Institute, San Diego, Ca
2006

Ecole Normale Superieur, Paris, France
University of New Mexico, Grass Traveling Lecturer, Santa Fe, NM
Rockefeller University, NY, NY
Emory University, Atlanta, GA
Carnegie Mellon University, Philadelphia, PA
Cold Spring Harbor, Learning and Memory, 2006
2005

RNA and Protein Synthesis, Kfar Blum, Israel, 2005
Molecular and Cellular Physiology, Stanford, Fall 2005
Vollum Institute, Winter, 2005
Neuroscience, UT Southwestern, Dallas, Winter, 2005
Women in Life Sciences Speaker, UCSF, Winter, 2005
2004

Montreal Neurological Institute, McGill University, Winter, 2004
Washington University Neuroscience, Spring, 2004
Penn Neurobiology, Spring, 2004
Harvard Medical School, Neurobiology, Spring, 2004
UT Southwestern Medical Center, Dallas, Winter, 2004
University of California, Santa Cruz, Winter, 2004
Picower Center for Learning and Memory, Learning Meeting, 2004
Molecular mechanisms of long-term memory, SFN symposium speaker, 2004
The Cytoskeleton and Synaptic Function, San Diego, 2004
Gordon Research Conference on the Cell Biology of the Neuron, 2004
2003

University of Colorado Denver, CO
Pasteur Institute, Paris, France
Neuron's 15th anniversary symposium: Cell Biology of the Neuron, New Orleans, LA

Assembly of Neural Circuits, Ascona, Switzerland
Formation and Function of Neural Circuits, Varenna, Italy
30th Anniversary of LTP, Royal Society, London, UK
2002
Laboratoire de Physiologie Cerebrale, CNRS, Paris, France
USC, LA, CA
Stanford, Molecular and Cellular Physiology, Palo Alto, CA
Learning and Behavior, UCLA, LA, CA
Cellular Motility and Signaling, Keystone, Taos, NM
2001
Cellular and Molecular Medicine, UCSD, San Diego, CA
MIT, Center for Learning and Memory, Boston, MA
Harvard Medical School, Boston, MA
Harvard, Molecular and Cellular Biology, Boston, MA
UCSD, Molecular Medicine, San Diego, CA
Learning and Memory Symposium, UCI, Irvine, CA
Harvard-Armenise Foundation Symposium, Milano, Italy
Keystone Meeting on Synaptic Function and the Hippocampus, Taos, NM
Cold Spring Harbor Learning and Memory Meeting, CSH, NY
2000
UCSF, San Francisco, CA
Duke University, Durham, NC
University of Pittsburgh, PA
UC Berkeley, Berkeley, CA
Gordon Research Conference on Neural Development, Salve Regina, NH
Gordon Research Conference on The Cell Biology of the Neuron, Plymouth, NH
1999
Harvey Mudd College, Pomona, CA
Neuronal Circuits, Monte Verita, Ascona, Switzerland
FASEB Meeting, Symposium on Local Protein Synthesis, Washington, D.C.
1998
Institute for Neurobiology, Max Planck Institute, Martinsried, Munich, Germany
Wake Forest University, Bowman Gray School of Medicine, NC
Washington University, McDonnell Neuroscience Speaker, St. Louis, MI
University of Chicago, Chicago, IL
Salk Institute and UCSD Neuroscience, La Jolla, CA
Whitehead Institute Symposium on Neurobiology, Boston, MA
Frontiers of Science, National Academy of Sciences, Irvine, CA
Cortical Plasticity: the representation of experience, Berlin, Germany
Gordon Research Conference on The Cell Biology of the Neuron, Plymouth, NH
Keystone Symp. The Hippocampus, Park City, UT
1997
Northwestern University Neurobiology Dept., Chicago, I
NIH, Neuroscience Lecture Series, Winter, Bethesda, MD
NYU, Neural Sciences Dept., NY, NY
Stanford University Neuroscience Retreat, Palo Alto, CA
Society for Neuroscience, Molecular Basis of Long-term Memory, New Orleans, LA
Gordon Research Conference on Neural Plasticity, NH,

Gordon Research Conference on Neurotrophins, Newport, RI
Neurotrophins in Development and Plasticity, Osaka, Japan
Dahlem Conference on Learning and Development, Berlin, Germany
UCI, Psychobiology Dept., Irvine, CA
UCLA, Neuroscience Dept., LA, CA
UC Berkeley, Neuroscience Dept., Berkeley, CA
U. Washington, Dept. Pharmacology/Neuroscience, Seattle, WA
1996

Johns Hopkins University, Neuroscience Dept., Baltimore, MA
LUMC, Neuroscience Dept
U. Iowa, Biology Dept.,
4th NGF Conference, London UK
Spring Hippocampus Meeting, Grand Cayman, BWI
Keystone Symposium on Signal Transduction, Taos, NM
1995

Neurotrophic factors in development, plasticity & survival, Madison, WI
Gordon Research Conference on Neurotrophins, Plymouth, NH
UC Davis, Center for Neuroscience, Davis, CA
Duke University, Dept. of Neurobiology, Durham, NC
University of Texas, Dept. of Pharmacology, San Antonio, TX
University of Southern California, Neuroscience Dept., LA., CA
University of Minnesota, Dept. of Physiology, Minnesota, MN
1994

Gif sur Yvette: The latest in synaptic transmission, Paris, France
European Society for Neurochemistry, Jerusalem, Israel
Brain Development and Function Course, Cold Spring Harbor, NY
FASEB Meeting, Anaheim, CA
City of Hope, Neuroscience group, Duarte, CA
University of Oregon, Neuroscience Institute, Eugene, OR
SUNY Stonybrook, Department of Pharmacology, Stonybrook NY
1993

Hopkins Marine Station, Monterey, CA
Banbury Meeting: Molecular Aspects of NO and NO Synthase, Cold Spring Harbor, NY
IUBMB Meeting: Biochemistry of Cellular Membranes, Bari Italy
Keystone Meeting: Molecular aspects of signal transduction. Taos, NM
American Chemical Society, NO symposium, Richmond, VA
1992

Duke University, Neurobiology Department, Durham, NC
Nitric Oxide: Brain and Immune system, Calabria, Italy
Brain Development and Function Course, Cold Spring Harbor, NY
Keystone Meeting: Synapse Formation and Function, Big Sky, Montana
Cold Spring Harbor Conference on Learning and Memory, NY

Community Seminars

Royal High School, Girl's Science Lecture, Bath UK 2016
Frankfurt International School, Girls Science Lecture, 2016
TedX Brain, Pasadena, CA 2013
Ernest Watson Public Lecture, 2007

Caltech Trustee's Board Meeting, 2007
Caltech Associate's President's Circle speaker, 2006
SURF summer speaker, 2003, 2005
WEST evening speaker, Fall, 2001
Caltech Discovery Weekend, Spring, 1997
Caltech Board of Trustees, Winter, 1997
Watson Lecture, Fall, 1996
Discovery Weekend, Caltech Development, Spring, 1996
Sigma Xi, L.A. Hughes Chapter, Spring, 1996
Caltech Physics Colloquium, Winter, 1995-1996
Keynote Address, AAUW, Bridges to Tomorrow, Fullerton, CA, Winter, 1995-1996
Helmholtz Lecture, UCI, Spring, 1995
Caltech Associates, Pasadena, CA, Fall, 1995
American Assoc. of University Women Foundation, Orlando, FL, Summer, 1995
Alzheimer's Disease: Causes and Effects, Caltech, Spring, 1995
West Coast Nerve Net, Caltech, Spring, 1995
Caltech Seminar Day, Spring, 1995
Caltech CNS Seminar, Spring, 1993
Caltech, Biology Division, Spring, 1992

PUBLICATIONS

Tushev, G., Glock, C., Heumueller, M., Biever, A., Jovanovic, M., and Schuman, E.M. (2018). Alternative 3'UTRs modify the localization, regulatory potential, stability, and plasticity of mRNAs in neuronal compartments. **Neuron**, published online on April 12, 2018, doi:10.1016/j.neuron.2018.03.030.

Schanzenbaecher, C.T., Langer, J.D., and Schuman, E.M. (2018). Time- and polarity-dependent proteomic changes associated with homeostatic scaling at central synapses. **eLife** 2018;7:e33322. doi: <https://doi.org/10.7554/eLife.33322>

Alvarez-Castelao, B., Schanzenbaecher, C.T., Hanus, C., Glock, C., tom Dieck, S., Dörrbaum, A.R., Bartnik, I., Nassim-Assir, B., Ciirdaeva, E., Mueller, A., Dieterich D.C., Tirrell, D.A., Langer, J.D., Schuman, E.M. (2017). Cell-type-specific metabolic labeling of nascent proteomes *in vivo*. **Nature Biotechnology**, 35: 1196-1201. doi:10.1038/nbt.4016

Glock, C., Heumueller, M., and Schuman, E.M. (2017). mRNA transport & local translation in neurons. **Current Opinion in Neurobiology**, 45: 169-177. doi: 10.1016/j.conb.2017.05.005

Rangaraju, V., tom Dieck, S., and Schuman, E.M. (2017). Local translation in neuronal compartments: how local is local? **EMBO Reports**, 18(5): 693-711. doi: 10.15252/embr.201744045

Sambandan, S., Akbalik, G., Kochen, L., Rinne, J., Kahlstatt, J., Glock, C., Tushev, G., Alvarez-Castelao, B., Heckel, A., and Schuman, E.M. (2017). Activity-dependent spatially localized miRNA maturation in neuronal dendrites. **Science**, 355 (6325), 634-637.

Vlatkovic, I., Sambandan, S., Tushev, G., Wang, M., Epstein, I., Glock, C., Fuerst, N., Cajigas, I.J., and Schuman, E.M. (2017). Poly(A) Binding Protein Nuclear 1 regulates

the polyadenylation of key synaptic plasticity genes and plays a role in homeostatic plasticity. **bioRxiv** 121194.

Akbalik, G., Langebeck-Jensen, K., Tushev, G., Sambandan, S., Rinne, J., Epstein, I., Cajigas, I.J., Vlatkovic, I., and Schuman, E.M. (2017). Visualization of newly synthesized neuronal RNA in vitro and in vivo using click-chemistry. **RNA Biology**, 14(1):20-28. doi: 10.1080/15476286.2016.1251541. Epub 2016

Schanzenbaecher, C.T., Sambandan, S., Langer, J.D., Schuman, E.M. (2016). Nascent proteome remodeling following homeostatic scaling at hippocampal synapses. **Neuron**, 92, 358-371.

Hanus, C., Geptin, H., Tushev, G., Garg, S., Alvarez-Castelao, B., Sambandan, S., Kochen, L., Hafner, A.S., Langer, J.D., Schuman, E.M. (2016). Unconventional secretory processing diversifies neuronal ion channel properties. **eLife**, doi:10.7554/eLife.20609

Chen, W. and Schuman, E.M. (2016). Circular RNAs in brain and other tissues: a functional enigma. **Trends in Neurosciences**, 39(9):597-604, doi:10.1016/j.tins.2016.06.006

Mahdavi, A., Hamblin, G., Jindal, G., Bagert, J., Dong, C., Sweredoski, M., Hess, S., Schuman, E.M., and Tirrell, D.A. (2016). An engineered aminoacyl-tRNA synthetase for cell-selective analysis of mammalian protein synthesis. **Journal of the American Chemical Society**, 138, 4278-4281, doi: 10.1021/jacs.5b08980

Tushev, G. & Schuman, E.M. (2016). Rethinking functional segregation: Gradients of gene expression in area CA1. **Neuron**, 89, 242-243, doi:10.1016/j.neuron.2016.01.002

Martin, K.C. & Schuman, E.M. (2015). Opting in or out: variable network solutions for learning. **Science**, 350 (6267): 1477-1478, doi: 10.1126/science.aad9467

Alvarez-Castelao, B. & Schuman, E. M. (2015). The Regulation of Synaptic Protein Turnover. **J Biol Chem**, 290: 28623-28630, doi:R115.657130 [pii] 10.1074/jbc.R115.657130.

tom Dieck, S., Kochen, L., Hanus, C., Bartnik, I., Nassim-Assir, B., Merk, K., Mosler, T., Garg, S., Bunse, S., Tirrell, D.A. and Schuman, E.M. (2015). Direct visualization of identified and newly synthesized proteins in situ. **Nature Methods**, 12: 411-414, doi:10.1038/NMETH.3319.

You, X., Vlatkovic, I., Babic, A., Will, T.J., Epstein, I., Tushev, G., Akbalik, G., Wang, M., Glock, C., Quedenau, C., Wang, X., Hou, J., Liu, H., Sun, W., Sambandan, S., Chen, T., Schuman, E.M.* and Chen, W. (2015) Neural circular RNAs are derived from synaptic genes and regulated by development and plasticity. * co-senior and corresponding authors. **Nature Neuroscience**, 18: 603-610, doi: 10.1038/nn.3975.

Buhr, F., Kohl-Landgraf, J., tom Dieck, S., Hanus, C., Chatterjee, D., Hegelein, A., Schuman, E.M., Wachtveitl J., and Schwalbe, H. (2015). Design of photocaged puromycin for nascent polypeptide release and spatiotemporal monitoring of translation. **Angewandte Chemie Intl. Ed. Engl.**, 54(12):3717-21; doi: 10.1002/anie.201410940.

Yuet, K.P., Doma, M.K., Ngo, J.T., Sweredoski, M.J., Graham, R.L.J., Moradian, A.,

Hess, S., Schuman, E.M., Sternberg, P.W., and Tirrell, D.A. (2015). Cell-specific proteomic analysis in *Caenorhabditis elegans*. **PNAS**, 112(9): 2705-2710, www.pnas.org/cgi/doi/10.1073/pnas.1421567112.

Garg, S., Fischer, S. Stelzer, E.H.K., and Schuman, E.M. (2015). Lateral assembly of N-cadherin drives tissue integrity by stabilising adherens junctions. **Journal of Royal Society Interface**, 12(104): 20141055, doi: 10.1098/rsif.2014.1055.

Hanus, C., Kochen, L., tom Dieck, S., Racine, V., Sibarita, J.B., Schuman, E.M., and Ehlers, M.D. (2014). Synaptic Control of Secretory Trafficking in Dendrites. **Cell Reports**, 7(6):1771-8. doi: 10.1016/j.celrep.2014.05.028.

Perkovic, M., Kunz, M., Endesfelder, U., Bunse, S., Wigge, C., Yu, Z., Hodirnau, V.V., Scheffer, M.P., Seybert, A., Malkusch, S., Schuman, E.M., Heilemann, M., and Frangakis, A.S. (2014). Correlative light- and electron microscopy with chemical tags. **Journal of Structural Biology**, 186(2):205-13. doi: 10.1016/j.jsb.2014.03.018.

Bagert, J.D., Xie, Y.J., Sweredoski, M.J., Qi, Y., Hess, S., Schuman, E.M., and Tirrell, D.A. (2014). Quantitative, time-resolved proteomic analysis by combining bioorthogonal noncanonical amino acid tagging and pulsed stable isotope labeling by amino acids in cell culture. **Mol. Cell. Proteomics**, 13(5):1352-8. doi:10.1074/mcp.M113.031914.

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