



Research Experience & Education

- 10/2021 - present **Group Leader** | [Max Planck Institute for Molecular Genetics, Berlin, DE](#)
“Gene expression at high resolution in neurodevelopment and neurological disease”
- 7/2020 - 10/2021 **International Guest Postdoctoral Fellow** | Max Planck Institute for Molecular Genetics, Berlin, DE
“Bioinformatic and microscopic analysis of protein synthesis in neurons”
- 7/2016 - 6/2018 **EMBO & Humboldt Postdoctoral Fellowships** | Charité-Universitätsmedizin, Berlin, DE
Institute of Medical Physics and Biophysics, Lab of Prof. Dr. Christian Spahn
“Protein synthesis in brain development analyzed by cryo-electron microscopy”
- 8/2010 - 5/2020 **MD/PhD Physician-Scientist Program** | Rutgers-Princeton Universities, NJ, USA
MD: graduation 5/2020 (didactic 8/2010 - 7/2012, clinical 6/2018 - 5/2020)
PhD: graduation 5/2016 (7/2012 - 5/2016)
Neuroscience & Cell Biology, Rutgers University Lab of Dr. Mladen-Roko Rasin
“Protein synthesis modulation by RNA-binding proteins in neocortex development”
- 6/2008 - 7/2010 **Laboratory Research Technician** | Columbia University, New York, NY, USA
Center for Motor Neuron Biology & Disease, Lab of Prof. Dr. Christopher Henderson
“Modeling neuromuscular disease in embryonic stem cell derived motor neurons”
- 1/2006 - 5/2010 **Clinical Research Chief (2008-10); Coordinator (2007-8); Associate (2006-7)**
Columbia University & St. Luke’s-Roosevelt Academic Associates, New York, NY, USA
- 5/2006 - 5/2008 **Undergraduate Laboratory Research** | Columbia University, New York, NY USA
Department of Physiology and Cellular Biophysics, Lab of Dr. Brian McCabe
“Synaptogenesis at the *Drosophila* neuromuscular junction by the splicing factor *beag*”
- 9/2004 - 5/2008 **University Education** | Columbia University, New York, NY, USA
BA, Neuroscience and Behavior

Awarded Fellowships and Grants

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| <i>Max Planck Institute for Molecular Genetics, Berlin, DE</i> | 2016 EMBO Postdoctoral Fellowship |
| 2020 International Guest Fellowship | <i>Rutgers University, NJ, USA</i> |
| <i>Charité-Universitätsmedizin, Berlin, DE</i> | 2014 NIH MD/PhD Fellowship: F30 NRSA |
| 2018 NeuroCure Innovation Grant | 2013 Teaching Fellowship in Medical Education |
| 2017 Alexander von Humboldt Postdoctoral Fellowship | <i>Columbia University, NY, USA</i> |
| iNEXT Cryo-electron Microscopy Grant | 2006 Henry J. Goldschmidt Research Fellowship |
| Instruct Structural Biology Pilot R&D Grant | |

Honors

- 2015** Outstanding Teaching and Service Award, Rutgers GSBS Master Educators Guild
2014 Aaron Shatkin Scholarship for academic excellence and scientific research
2013 Finalist: Congressional Medal of Honor Society, Citizen Service Commendation

Publications

Submitted (under consideration)

1. Harnett D, Ambrozkiwicz MC, Zinnall U, Borisova E, Rusanova A, Dannenberg R, Imami K, Münster-Wandowski A, Fauler B, Mielke T, Selbach M, Landthaler M, Spahn CMT, Tarabykin V, Ohler U, **Kraushar ML**. Timed global reorganization of protein synthesis during neocortex neurogenesis at codon resolution. *bioRxiv*. <https://doi.org/10.1101/2021.06.23.449626>.
2. Ambrozkiwicz MC, Borisova E, Newman AG, **Kraushar ML**, Schaub T, Dannenberg R, Brockmann M, Rosário M, Turko P, Jahn O, Kaplan DR, Iwawaki T, Spahn CMT, Rosenmund C, Tarabykin V. Ire1 α -Regulated Rate of mRNA Translation is Required for Acquisition of Identity and Polarity in Upper Layer Cortical Neurons. *bioRxiv*. <https://doi.org/10.1101/2021.06.23.449563>.

Scientific literature

1. (2021) **Kraushar ML***, Krupp F, Harnett D, Turko P, Ambrozkiwicz MC, Sprink T, Imami K, Günnigmann M, Zinnall U, Vieira-Vieira CH, Schaub T, Münster-Wandowski A, Bürger J, Borisova E, Yamamoto H, Rasin M-R, Ohler U, Beule D, Mielke T, Tarabykin V, Landthaler M, Kramer G, Vida I, Selbach M, Spahn CMTS*. Protein synthesis in the developing neocortex at near-atomic resolution reveals Ebp1-mediated neuronal proteostasis at the 60S tunnel exit. *Molecular Cell*. 81:304-322.e16.
*co-corresponding
2. (2020) Popovitchenko T, Park Y, Page N, Luo X, Krsnik Ž, Liu Y, Salamon I, Stephenson J, **Kraushar ML**, Volk N, Patel S, Wijeratne HRS, Li D, Suthar K, Wach A, Sun M, Arnold S, Wado A, Okano H, Paillard L, Zhang H, Buyske S, Kostović I, de Rubeis S, Hart R, Rasin M-R. Translational derepression of Elavl4 isoforms at their alternative 5' UTRs determines neuronal development. *Nature Communications*. 11:1674.
3. (2016) **Kraushar ML**, Popovitchenko T, Volk NL, Rasin M-R. The frontier of RNA metamorphosis and ribosome signature in neocortical development. *International Journal of Developmental Neuroscience*. 55:131-139.
4. (2015) **Kraushar ML**, Viljetic B, Wijeratne HRS, Thompson K, Xiao J, Pike JW, Medvedeva V, Groszer M, Kiledjian M, Hart RP, Rasin M-R. Thalamic WNT3 secretion spatiotemporally regulates the neocortical ribosome signature and mRNA translation to specify neocortical cell subtypes. *Journal of Neuroscience*. 35:10911-26.
5. (2014) **Kraushar ML**, Thompson K, Wijeratne HRS, Viljetic B, Sakers K, Marson J, Kontoyiannis DL, Hart RP, Rasin M-R. Temporally defined neocortical translation and polysome assembly are determined by the RNA-binding protein Hu antigen R. *Proceedings of the National Academy of Sciences USA*. 111:E3815-3824.
6. (2013) DeBoer EM*, **Kraushar ML***, Hart RP, Rasin M-R. Post-transcriptional regulatory elements and spatiotemporal specification of neocortical stem cells and projection neurons. *Neuroscience*. 248:499-528.
*equal contribution
7. (2012) Beck ES, Gasque G, Imlach WL, Jiao W, Choi BJ, Wu P-S, **Kraushar ML**, McCabe BD. Regulation of Fasciclin II and synaptic terminal development by the splicing factor *beag*. *Journal of Neuroscience*. 32:7058-7073.

Medical literature

8. (2015) **Kraushar ML**, Rosenberg RE. A community-led medical response effort in the wake of Hurricane Sandy. *Disaster Medicine and Public Health Preparedness*. 9:354-358.
9. (2015) Newman DH, Ackerman B, **Kraushar ML**, Lederhandler MH, Masri A, Starikov A, Tsao DT, Shah KH. Quantifying Patient-Physician Communication and Perceptions of Risk During Admissions for Possible Acute Coronary Syndromes. *Annals of Emergency Medicine*. 66:13-18. (Highlighted in *US News and World Report*. May 7, 2015)

Selected oral presentations

- 2021 EMBL-EMBO Protein Synthesis and Translational Control Conference, Heidelberg, DE (selected talk)
14th Göttingen Meeting of the German Neuroscience Society (invited speaker)
Max Planck Institute for Brain Research, Frankfurt, DE (invitation, Director Prof. Erin Schuman)
- 2019 Protein Folding on the Ribosome Conference, Berlin, DE (selected talk)
Max Planck Institute for Molecular Genetics, Berlin, DE (invitation, Director Prof. Martin Vingron)
BRIC, University of Copenhagen, Copenhagen, DK (invitation, Director Prof. Anders Lund)
EMBL-EMBO Protein Synthesis and Translational Control Conference, Heidelberg, DE (selected talk)
Center for Advanced Biotechnology and Medicine, Rutgers University, NJ, USA (invitation, Dr. James Millonig)
- 2018 MD/PhD Symposium, Rutgers-Princeton Universities, NJ, USA (selected talk)
Max Planck Institute for Molecular Genetics, Berlin, DE (invitation, Dr. Thorsten Mielke)
Max Delbrück Center for Molecular Medicine, Berlin, DE (invitation, Dr. Marina Chekulaeva)
- 2017 Alexander von Humboldt Fellows Conference, Potsdam, DE (selected talk)
NeuroCure Institute Seminar, Charité-Universitätsmedizin, Berlin, DE
BRIC, University of Copenhagen, Copenhagen, DK (invitation, Director Prof. Anders Lund)
NeuroCure Institute Seminar, Charité-Universitätsmedizin, Berlin, DE
- 2015 [MEDtalk](#), Rutgers-Princeton Universities, NJ, USA (selected talk)
- 2014 Hospital Grand Rounds, Neurology/Neurosurgery, Capital Health, NJ, USA (invitation, Dr. Mitra Assadi)

Teaching Experience

Invited lecturer: “Biostatistics in Evidence-Based Medicine and the USMLE Step-1”

Rutgers University RWJ Medical School, NJ, USA

2013-2015; 4 lectures; Faculty Advisor: Dr. Emine Abali, Evidence-Based Medicine Task Force

Invited lecturer: Clinical Research Course, HuMed MD Program, Topics in Evidence-Based Medicine

Mount Sinai School of Medicine, NY, USA

07/2013, 07/2014; 6 lectures; Faculty Advisor: Dr. David Newman

Medical School Teaching Assistant: biochemistry, embryology, molecular biology, neurology, hematology, pathogens

Rutgers University RWJ Medical School, NJ, USA

2012-2015; Faculty Advisor: Dr. Emine Abali

Undergraduate Course Teaching Assistant: Clinical Research in Emergency Medicine

Columbia University, Biology Department, NY, USA

2008-2010; Faculty Advisor: Dr. David Newman

Professional Courses

2020 EMBO Laboratory Leadership – Heidelberg, DE

2016 A Practical Introduction to Quantitative Shotgun Proteomics – Max Delbrück Center, Berlin, DE

Community Outreach

2020 Team leader, [Community COVID Checkup](#)
Pandemic medicine response team leader, New York, USA

2012 Team leader, [Hurricane Sandy Medical Relief Effort \(MEDtalk\)](#)
Disaster medicine response team leader, New York, USA