

Dr. Ivana Nikić-Spiegel

Date of Birth: 27.11.1981, Belgrade, Serbia
Current Position: Head of Research Group “Molecular Mechanisms of Axonal Injury” at
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Education

- **2006 – 2011:** PhD studies at the Medical Faculty of Ludwig-Maximilians-University, Munich, Germany - Dr. rer. biol. hum. (*summa cum laude*)
- **2000 – 2005:** Master studies of Molecular Biology and Physiology at the Faculty of Biology, University of Belgrade, Serbia (*average mark 9.46 on a scale of 5 (fail) – 10 (high)*)

Academic career

- **06/2016 – present:** Junior Group Leader at the Werner Reichardt Centre for Integrative Neuroscience (CIN), Tübingen
 - **10/2016:** : accepted into the Emmy Noether programme of the DFG
- **03/2012 – 05/2016:** Marie Curie IntraEuropean and EMBO long-term postdoctoral fellow in the laboratory of Edward Lemke, EMBL, Heidelberg
- **01/2012 - 02/2012:** Postdoctoral fellow in the laboratory of Martin Kerschensteiner (LMU Munich)
- **07/2006 – 12/2011:** PhD thesis work in the laboratory of Martin Kerschensteiner at the Institute of Clinical Neuroimmunology, LMU Munich, Germany; co-supervised by Thomas Misgeld, TUM, Germany
- **08/2005 – 12/2005:** Experimental part of the diploma thesis research in the laboratory for Neurochemistry at the Institute for Biological Research “Sinisa Stankovic”, Belgrade, Serbia

Awards, grants and fellowships

- **2017:** Publication award of the SPP 1623 for Nikić et al, 2016 Angewandte paper
- **2016:** accepted into the Emmy Noether programme of the DFG: NI1758/1-1 "Imaging neuroinflammatory axonal injury at nanoscale resolution". Funding from 2017 – 2022 (total of 1 514 700 €)
- **2014:** Publication award of the SPP 1623 for Nikić et al, 2014 Angewandte paper
- **2014:** Travel award for the 2014 ASCB/IFCB Meeting in Philadelphia, USA
- **2014:** Selected to attend Lindau Nobel Laureate meeting (dedicated to Physiology or Medicine) in Lindau, 29 June - 4 July
- **2013:** Marie Curie IntraEuropean Fellowship (*fellowship duration: 1.1.2014. to 31.12.2015.*)
- **2013:** EMBO long-term fellowship (*fellowship duration: 1.1.2013. to 31.12.2013.*)
- **2012:** Best thesis of the Medical Faculty (LMU, Munich) award (*Dr. Hildegard und Heinrich Fuchs Preis zur Förderung medizinischen Nachwuchses*)
- **2011:** 1st Neurowind Junior Research Award for Experimental Neurology
- **2010:** Poster prize at the Workshop "Molecular and Cellular Mechanisms of Axon Degeneration", Eibsee, Germany
- **2009:** Poster prize at the Munich PhD symposium "Interact 2009"
- **2005:** Scholarship for the talented students from The City Government of Belgrade

List of publications

- Sakin V, Hanne J, Dunder J, Anders-Össwein M, Laketa V, **Nikić I**, Kräusslich HG, Lemke EA, Müller B. Labeling of the HIV-1 envelope protein by genetic code expansion and click chemistry for live-cell imaging and super-resolution nanoscopy. *Cell Chemical Biology*, *accepted manuscript*
- **Nikić I[#]**. **2017**. Genetic code expansion-and click chemistry-based site-specific protein labelling for intracellular DNA-PAINT imaging. *Methods in molecular biology*, *accepted manuscript* ([#]corresponding author)
- **Nikić I***, Estrada Girona G*, Kang JH*, Paci G, Mikhaleva S, Koehler C, Shymanska NV, Ventura Santos C, Spitz D, Lemke EA. **2016**. Debugging Eukaryotic Genetic Code Expansion for Site-Specific Click-PAINT Super-Resolution Microscopy. *Angewandte Chemie International Edition* 55(52):16172-16176 (* equal contribution)
Front cover article.

- Romanelli E, Merkler D, Mezydło A, Weil MT, Weber MS, **Nikić I**, Potz S, Meinl E, Matznick FE, Kreuzfeldt M, Ghanem A, Conzelmann KK, Metz I, Brück W, Routh M, Simons M, Bishop D, Misgeld T, Kerschensteiner M. **2016**. Myelinosome formation represents an early stage of oligodendrocyte damage in multiple sclerosis and its animal model. **Nature Communications** 7:13275.
- Kipper K, Lundius EG, Curic V, **Nikić I**, Lemke EA, Wiessler M, Elf J. **2016**. Application of noncanonical amino acids for protein labeling in a genomically recoded Escherichia coli. **American Chemical Society synthetic biology**. DOI: 10.1021/acssynbio.6b00138 [Epub ahead of print]
- Kozma E, **Nikić I**, Varga BR, Aramburu IV, Kang JH, Fackler OT, Lemke EA, Kele P. **2016**. Hydrophilic trans-Cyclooctenylated Noncanonical Amino Acids for Fast Intracellular Protein Labeling. **ChemBiochem** 17(16):1518-24.
Inside cover article.
- Vreja IC, **Nikić I**, Göttfert F, Bates M, Kröhnert K, Outeiro TF, Hell SW, Lemke EA, Rizzoli SO. **2015**. Super-resolution Microscopy of Clickable Amino Acids Reveals the Effects of Fluorescent Protein Tagging on Protein Assemblies. **ACS Nano** 9(11):11034-41.
- **Nikić I**, Lemke EA. **2015**. Genetic code expansion enabled site-specific dual-color protein labeling: superresolution microscopy and beyond. **Curr Opin Chem Biol**. 28:164-73.
Front cover article.
- Hoffmann JE, Plass T, **Nikić I**, Valle Aramburu I, Koehler C, Gillandt H, Lemke EA, Schultz C. **2015**. Highly stable trans-cyclooctene amino acids for live cell labeling. **Chemistry** 21(35):12266-70.
- Wagner JA, Mercadante D, **Nikić I**, Lemke EA, Gräter F. **2015**. Origin of Orthogonality of Strain-Promoted Click Reactions. **Chemistry** 21(35):12431-5.
- **Nikić I***, Kang JH*, Girona GE*, Aramburu IV, Lemke EA. **2015**. Labeling proteins on live mammalian cells using click chemistry. **Nature Protocols** 10(5):780-91. (* equal contribution)
- Gristwood A, Casano AM, **Nikić I**. **2015**. Lindau in the 21st Century: more women, more dialog, more passion: An interview with Countess Bettina Bernadotte and Wolfgang Schürer from the Lindau Nobel Laureate Meetings. **EMBO Reports** (4):407-10.
- Sorbara CD, Wagner NE, Ladwig A, **Nikić I**, Merkler D, Kleele T, Marinković P, Naumann R, Godihno L, Bareyre FM, Bishop D, Misgeld T, Kerschensteiner M. **2014**. Pervasive axonal transport deficits in multiple sclerosis models. **Neuron** 84(6):1183-90.
- Herner A, Estrada Girona G, **Nikić I**, Kállay M, Lemke EA, Kele P. **2014**. New generation of bioorthogonally applicable fluorogenic dyes with visible excitations and large Stokes shifts. **Bioconjug Chem**. 25(7):1370-4.

- **Nikić I**, Plass T, Schraidt O, Szymański J, Briggs JAG, Schultz C, Lemke EA. **2014**. Minimal Tags for Rapid Dual-Color Live-Cell Labeling and Super-Resolution Microscopy. **Angewandte Chemie International Edition** 53(8):2245-9.
- Bishop D, **Nikić I**, Kerschensteiner M, Misgeld T. **2014**. The use of a laser for correlating light and electron microscopic images in thick tissue specimens. **Methods in Cell Biology** 124:323-37.
- Romanelli E*, Sorbara CD*, **Nikić I***, Dagkalis A, Misgeld T, Kerschensteiner M. **2013**. Cellular, subcellular and functional in vivo labeling of the spinal cord using vital dyes. **Nature Protocols** 8(3):481-90. (*equal contribution)
Front cover article.
- **Nikić I**, Misgeld T, Kerschensteiner M. **2013**. Chapter 48 - New Approaches in Glial Biology: Imaging Neuroglial Pathology In Vivo. **Patterning and Cell Type Specification in the Developing CNS and PNS**, Pages 929-944
- Herner A, **Nikić I**, Kállay M, Lemke EA, Kele P. **2013**. A new family of bioorthogonally applicable fluorogenic labels. **Organic & Biomolecular Chemistry** 11(20):3297-306.
- Bishop D, **Nikić I**, Brinkoetter M, Knecht S, Potz S, Kerschensteiner M and Misgeld T. **2011**. NIRB - near-infrared branding efficiently correlates light and electron microscopy. **Nature Methods** 8(7):568-70.
- **Nikić I**, Merkler D, Sorbara C, Brinkoetter M, Kreuzfeldt M, Bareyre FM, Brück W, Bishop D, Misgeld T and Kerschensteiner M. **2011**. A reversible form of axon damage in experimental autoimmune encephalomyelitis and multiple sclerosis. **Nature Medicine** 17(4):495-9.
Front cover article. Featured in Science and Nature Medicine editorials.
- Misgeld T, **Nikić I**, and Kerschensteiner M. **2007**. *In vivo* imaging of single axons in the mouse spinal cord. **Nature Protocols** 2(2):263-8.
Front cover article.

Patents

- US patent application: Multiple cycloaddition reactions for labelling of molecules. Publication number: CA 2936615 A1. Lemke EA, **Nikić I**, Plass T, Hoffmann J-E, Valle Aramburu I, Schultz C
- Provisional patent application, Archaeal pyrrolysyl tRNA synthetases for orthogonal use. Lemke EA, **Nikić I**, Estrada Girona G, Koehler C. Application filed on the 14th of October, 2016

Invited and contributed talks

- *(upcoming)* **October 2017**: invited talk at the “Emerging Concepts in Ion Channel Biophysics” Biophysical Society Meeting, 10th – 13th of October, Mexico City, Mexico
- **June 2017**: DZNE seminar at DZNE in Tübingen
- **September 2016**: Talk at the Bridging the gap between Physical & Agri-Sciences conference organised by Imperial College London PhD students, 26th of September, London, United Kingdom
- **October 2016**: Talk at the 6th PhD Symposium of the International Max Planck Research School CMB, 26th of October, Dortmund, Germany
- **June 2015** - Talk at the EMBO Fellows’ meeting 2015, 18th - 21st June, Heidelberg
- **August 2014**: Talk at EMBO Chemical Biology 2014 conference, 20th - 23rd August, Heidelberg, Germany
- **April 2014**: Talk at Focus on Microscopy Meeting, 13th - 16th April, Sydney, Australia
- **July 2012**: Talk at Olympus Workshop during 12th international ELMI meeting, 5th - 8th July, Leuven, Belgium
- **April 2011**: Talk at Munich PhD Symposium "Interact 2011", 7th April, Munich, Germany
- **February 2010**: Talk at the XII Symposium “Research at the department of neurology” (“Forschung in der Neurologie”), University Hospital Grosshadern, Munich, Germany

Poster presentations

- **October 2015** – Poster presentation at the “Seeing is Believing - Imaging the Processes of Life” EMBO Symposium, 6th – 10th of October, Heidelberg, Germany
- **December 2014** – ePoster and poster presentation at the ASCB/IFCB (American Society for Cell Biology/International Federation for Cell Biology) meeting in Philadelphia, 6th -11th December, Philadelphia, USA
- **October 2010**: Poster presentation at the "Molecular and Cellular Mechanisms of Axon Degeneration" Workshop, 3rd – 6th October, Eibsee, Germany
- **October 2009**: Poster presentation at the SFN (“Society for Neuroscience”) Meeting, 17th – 21st October, Chicago, USA
- **April 2009**: Poster presentation at Munich PhD Symposium "Interact 2009", 2nd April, Munich, Germany
- **November 2008**: Poster presentation at 30th GIF (German-Israeli Foundation) Brain Imaging Meeting, supported by the Max-Planck Society, 19th – 21st November, Kibbutz Maale Hachamisha, Israel

Teaching experience and participation in courses

- **Summer Term 2016:** course on Cell Imaging Techniques, Graduate Training Centre of Neuroscience & International Max Planck Research School, Tübingen
- **2013 and 2014:** Speaker at EMBL Advanced Course on Fluorescence Imaging Techniques, EMBL Heidelberg, Germany
- **June/July 2008:** Teaching assistant in the Neurobiology course at the Marine Biological Laboratory (MBL), Woods Hole, USA