

PhD course "Antimicrobial Peptide Therapeutics: Design Principles,
Mechanisms and Clinical Application"

CURRICULUM VITAE

Ines Neundorf



1 Short CV

Research Interests

Membrane-active peptides: antimicrobial peptides / cell-penetrating peptides / organelle targeting sequences; peptide synthesis and modification; peptides in tumor diagnosis and therapy

Professional Career

Since 01/2016 Professor for Biochemistry, University of Cologne
06/2011 - 12/2015 Juniorprofessor for Biochemistry, University of Cologne
11/2003 - 05/2011 Research Assistant Institute of Bioorganic Chemistry and Biochemistry, University of Leipzig (Prof. Dr. A.G. Beck-Sickinger)
04/2001 - 0/2003 Research Fellow Institute of Organic Chemistry, University of Leipzig (Prof. Dr. P. Welzel)

Academic Education

06/2011 Habilitation, *Venia legendi* in Bioorganic Chemistry, University of Leipzig
03/2001 - 05/2003 Graduate Study, Dissertation in Organic Chemistry at University of Leipzig
10/1997 - 02/2001 Studies in Chemistry, Diplom, University of Leipzig
10/1995 - 09/1997 Studies in Chemistry, Diplom, University of Freiburg

Service to scientific community and Honours (selection)

since 2022 Vice Dean for Gender, Diversity and Young Academics, Faculty of Mathematics and Natural Sciences at the UoC
since 2020 Deputy Speaker of the DFG-funded RTG 2550 "Reloc"
since 2019 Editorial board member, Scientific Reports
10/2019 - 03/2022 Member of the Faculty Council
2019 Organizer of the 14th German Peptide Symposium, Cologne
04/2016 - 03/2019 Acting director of the Institute of Biochemistry, University of Cologne

01/2016 -12/2019 Funding within the Professorinnenprogramm of the Federal Ministry of Education and Research
since 2014 Member of Max-Bergmann-Kreis e.V. "zur Förderung peptidchemischer Arbeiten"

2 Bibliometric data

(GoogleScholar, Dez 2022): > 2800 citations, > 90 Publications, 4 Book chapters, *h*-Index: 30

3 Selection of the 10 most relevant publications

1. Alkhashrom S, Kicuntod J, Stillger K, Lützenburg T, Anzenhofer C, Neundorf I, Marschall M, Eichler J. A Peptide Inhibitor of the Human Cytomegalovirus Core Nuclear Egress Complex. *Parmaceuticals*. 2022;15(9):1040.
2. Klimpel A, Stillger, K, Wiederstein JL, Krüger M, Neundorf I. Cell-permeable CaaX-peptides affect K-Ras downstream signaling and promote cell death in cancer cells. *FEBS J*. 2021;288(9):2911-2929.
3. Noguchi K, Obuki M, Sumi H, Klußmann M, Morimoto K, Nakai S, Hashimoto T, Fujiwara D, Fujii I, Yuba E, Takatani-Nakase T, Neundorf I, Nakase I. Macropinocytosis-Inducible Extracellular Vesicles Modified with Antimicrobial Protein CAP18-Derived Cell-Penetrating Peptides for Efficient Intracellular Delivery. *Mol Pharm*. 2021;18(9):3290-3301.
4. Drexelius M, Reinhardt A, Grabeck J, Cronenberg T, Nitsche F, Huesgen PF, Maier B, Neundorf I. Multistep optimization of a cell-penetrating peptide towards its antimicrobial activity. *Biochem J*. 2021;478(1):63-78.
5. Negrete-Hurtado A, Overhoff M, Bera S, De Bruyckere E, Schätzmüller K, Kye MJ, Qin C, Lammers M, Kondylis V, Neundorf I, Kononenko NL. Autophagy lipidation machinery regulates axonal microtubule dynamics but is dispensable for survival of mammalian neurons. *Nat Commun*. 2020;11(1):1535.
6. Feni L, Jütten L, Parente S, Piarulli U, Neundorf I, Diaz D. Cell-penetrating peptides containing 2,5-diketopiperazine (DKP) scaffolds as shuttles for anti-cancer drugs: conformational studies and biological activity. *Chem Commun (Camb)*. 2020;56(42):5685-5688.
7. Feni L, Parente S, Robert C, Gazzola S, Arosio D, Piarulli U, Neundorf I. Kiss and Run: Promoting Effective and Targeted Cellular Uptake of a Drug Delivery Vehicle Composed of an Integrin-Targeting Diketopiperazine Peptidomimetic and a Cell-Penetrating Peptide. *Bioconjug Chem*. 2019;30(7):2011-2022.
8. Klimpel A, Neundorf I. Bifunctional peptide hybrids targeting the matrix of mitochondria. *J Control Release*. 2018;291:147-156.
9. Gronewold A, Horn M, Randelović I, Tóvári J, Muñoz Vázquez S, Schomäcker K, Neundorf I. Characterization of a Cell-Penetrating Peptide with Potential Anticancer Activity. *ChemMedChem*. 2017;12(1):42-49.
10. Reinhardt A, Horn M, Pieper gen. Schmauck J, Bröhl A, Giernoth R, Oelkrug C, Schubert A, Neundorf I. Novel imidazolium salt-peptide conjugates and their antimicrobial activity. *Bioconjugate Chem* 2014, 25, 2166-74.