Dr. Christine Wuebben

Personal Data

Title	Dr. rer. nat
First name	Christine
Name	Wuebben
Current position	PostDoc
Current institution(s)/site(s), country	Institute of Clinical Chemistry and Clinical Pharmacology, University Hospital Bonn, Germany
Identifiers/ORCID	0000-0002-7860-3149

Qualifications and Career

Stages	Periods and Details	
Degree Program		Bachelor of Science in Chemistry, 2011 – 2014, University of Bonn, Germany Master of Science in Chemistry, 2014 – 2016, University of Bonn, Germany
Doctorate	2016 – 2021	Mentor: O. Schiemann, Ph.D. in Chemistry, University of Bonn, Germany
Stages of academic/professional career	Since 2021	Postdoctoral fellow and Head of Nucleic Acid Chemistry Laboratory, Mentor: Gunther Hartmann, University Hospital Bonn, Germany

Activities in the Research System

Academic Distinctions: Prototyping grant for the project "Coldex" of the Transfer Center enaCom of the University of Bonn, €44,000 (2023); Winner of the 2nd Medical Pitch Contest of the Medical Faculty of the University of Bonn with prize money of €25,000 (2023). Scholarship, ImmunoSensation^2 PostDoc Innovation Fund (1/2022 – 12/2022, 10/2023 – 9/2024); Maria von Linden Scholarship (10/2020 – 02/2021); Scholarship, Ministry for Innovation, Science and Research of the State of North Rhine-Westphalia (10/2012 – 03/2014). Travel Grant, OTS (2022), Travel Grant, TRR 237 (2022), Travel Grant, ImmunoSensation^2 (2022), Travel Grant, GDCh (2019), Travel Grant, DFG 1601 (2018, 2019).

Scientific Results

Citations: 230, h-index: 8, i10-index: 8 (Google Scholar, 21.03.2024)

Category A (* corresponding author)

1. J. Borggräfe, J. Victor, H. Rosenbach, A. Viegas, C.G.W. Gertzen, **C. Wuebben**, H. Kovacs, M. Gopalswamy, D. Riesner, G. Steger, O. Schiemann, H. Gohlke, I. Span, M. Etzkorn* "Time-resolved structural analysis of an RNA-cleaving DNA catalyst" *Nature* **2022**, 601, 144–149. DOI: 10.1038/s41586-021-04225-4.

2. **C. Wuebben**, M.F. Vicino, M. Mueller, O. Schiemann* "Do the P1 and P2 hairpins of the Guanidine-II Riboswitch interact?" *Nucleic Acids Res.* **2020**, 48, 10518–10526. DOI: 10.1093/nar/gkaa703.

3. C. Domnick, F. Eggert, **C. Wuebben**, L. Bornewasser, G. Hagelueken, O. Schiemann*, S. Kath-Schorr* "EPR Distance measurements on long non-coding RNAs empowered by genetic alphabet expansion transcription" *Angew. Chem. Int. Ed.* **2020**, 59, 7891–7896. DOI: 10.1002/anie.201916447.

4. H. Rosenbach, J. Borggräfe, J. Victor, **C. Wuebben**, O. Schiemann, W. Hoyer, G. Steger, M. Etzkorn*, I. Span* “Influence of monovalent metal ions on metal binding and catalytic activity of the 10–23 DNAzyme” *Biol. Chem.* **2020**, 402, 99–111. DOI: 10.1515/hsz-2020-0207.
5. **C. Wuebben**, S. Blume, D. Abdullin, D. Brajtenbach, F. Haege, S. Kath-Schorr, O. Schiemann* “Site-Directed Spin Labeling of RNA with a *Gem*-Diethylisoindoline Spin Label: PELDOR, Relaxation, and Reduction Stability” *Molecules* **2019**, 24, 4482. DOI: 10.3390/molecules24244482.
6. M. Kerzhner, H. Matsuoka, **C. Wuebben**, M. Famulok*, O. Schiemann* “High-Yield Spin Labeling of Long RNAs for Electron Paramagnetic Resonance Spectroscopy” *Biochemistry* **2018**, 57, 2923–2931. DOI: 10.1021/acs.biochem.8b00040.
7. J.J. Jassoy, A. Meyer, S. Spicher, **C. Wuebben**, O. Schiemann* “Synthesis of Nanometer Sized Bis- and Tris-trityl Model Compounds with Different Extent of Spin–Spin Coupling” *Molecules* **2018**, 23, 682. DOI: 10.3390/molecules23030682.
8. V. Schildgen, J. Lüsebrink, J.D. Appel, **C. Wuebben**, W. Engel-Riedel, C. Ludwig, E. Stoelben, O. Schildgen, M. Brockmann* “Identification of Uncommon PIK3CA Mutations in Lung Cancer by Using Pyrosequencing” *Diagn. Mol. Pathol.* **2013**, 22, 22–27. DOI: 10.1097/PDM.0b013e31825f5f93.

Category B

Publications

1. **C. Wuebben**, E. Bartok, G. Hartmann* “Innate sensing of mRNA vaccines” *Curr. Opin. Immunol.* **2022**, 79, 102249. DOI: 10.1016/j.coi.2022.102249.
2. **C. Wuebben**, O. Schiemann* “Quantifying the Number and Affinity of Mn^{2+}-Binding Sites with EPR Spectroscopy” *Meth. Mol. Biol.* **2022**, 2439, 91–101. DOI: 10.1007/978-1-0716-2047-2_7.
3. M.F. Vicino, **C. Wuebben**, M. Kerzhner, M. Famulok, O. Schiemann* “Spin Labeling of Long RNAs Via Click Reaction and Enzymatic Ligation” *Meth. Mol. Biol.* **2022**, 2439, 205–221. DOI: 10.1007/978-1-0716-2047-2_14.

Patents

1. Discontinuous oligonucleotide ligands, US Application, US18/047,487.
2. Ribonucleic acid construct capable of inducing an immune response, as well as pharmaceutical composition and kit comprising same, EP Application, EP 23 205 742.2
3. Construct comprising mRNA-strand and retinoic acid-inducible gene I (RIG-I)-ligand(s), pharmaceutical composition and kit comprising the same, EP Application, EP 24153970.9.
4. Inducible RIG-I Ligands, ongoing process.
5. RIGin, ongoing process.
6. Production of App-X-RNA via synthetic AppXpG starter as an additive during in vitro transcription, ongoing process.