

Roman C. Sarott, Ph.D.

Jahnstrasse 29
D-69120 Heidelberg, Germany

Date of Birth: October 6, 1991
Nationality: Swiss

Email: roman.sarott@mr.mpg.de
Phone: +49 0151 20786459

EDUCATION

2016 – 2021	Ph.D. in Chemistry , ETH Zürich, Switzerland <i>Graduation: 05/26/2021, Awarded with 2021 ETH Medal</i>
2014 – 2016	Master of Chemistry , ETH Zürich, Switzerland Awarded with Distinction (GPA 5.81/6.00)
2010 – 2013	Bachelor of Chemistry , ETH Zürich, Switzerland (GPA 5.51/6.00)

RESEARCH EXPERIENCE

Max Planck Institute for Medical Research , Heidelberg, Germany Max Planck Research Group Leader	Since 01/2025
Shenandoah Therapeutics , San Francisco, USA Founder and Founding Senior Scientist	08/2024 – 12/2024
Stanford University , California, USA SNSF Postdoctoral Research Fellow with Prof. Dr. Nathanael S. Gray	11/2021– 07/2024
ETH Zürich , Switzerland Doctoral Studies with Prof. Dr. Erick M. Carreira	11/2016 – 05/2021
F. Hoffmann La-Roche , Basel, Switzerland Medicinal Chemistry Internship	05/2016 – 09/2016
UC Berkeley , California, USA Master Thesis with Prof. Dr. F. Dean Toste	09/2015 – 03/2016

AWARDS & SCHOLARSHIPS

01/2024	Stanford Cancer Institute Postdoc Fellowship
07/2022	ETH Medal for Outstanding Dissertations
04/2022	ACS El Sohly Award for Excellence in Cannabis Chemistry
02/2022	SNSF Postdoc.Mobility Fellowship

16. “Profiling Allosteric Modulators of CB1R with an Allosteric Fluoroprobe”
M. Kosar, T. Perera, R. L. Z Ganzoni, R. C. Sarott, L. Borrega-Roman, R. M. Vitale, A. Ligresti, A. Rufer, W. Guba, U. Grether, D. Veprintsev, D. Sykes, and E. M. Carreira, *Angew. Chem. Int. Ed.* **2025**, *accepted*, DOI: <https://doi.org/10.1002/ange.202421885>.
15. “Activating p53Y220C with a Mutant-Specific Small Molecule”
X. Zhu, W. Byun, D. Pieńkowska, K. Nguyen, J. Gerhartz, Q. Geng, T. Qiu, J. Zhong, Z. Jiang, M. Wang, R. C. Sarott, S. M. Hinshaw, T. Zhang, L. D. Attardi, R. P. Nowak, N. S. Gray, *bioRxiv preprint*: DOI: <https://doi.org/10.1101/2024.10.23.619961>.
14. “Relocalizing transcriptional kinases to activate apoptosis”
R. C. Sarott, S. Gourisankar, B. Karim, J. M. Simanaukaite, S. Nettles, H. Yang, B. Dwyer, J. Tse, A. Krokhoutin, S. M. Hinshaw, T. Zhang, M. Green, G. R. Crabtree, N. S. Gray, *Science* **2024**, *386*, DOI: 10.1126/science.adl5361.
13. “Discovery of CRBN-dependent WEE1 Molecular Glue Degradators from a Multicomponent Combinatorial Library” H. Razumkov, Z. Jiang, K. Baek, I. You, Q. Geng, K. A. Donovan, M. T. Tang, R. J. Metivier, N. Mageed, P. Seo, Z. Li, W. Sub Byun, S. M. Hinshaw, R. C. Sarott, E. S. Fischer, and N. S. Gray, *J. Am. Chem. Soc.* **2024**, *146*, 46, 31433–31443: DOI: <https://doi.org/10.1101/2024.05.04.592550>.
12. “Flipping the GPCR switch: Structure-based development of selective cannabinoid receptor 2 inverse agonists”
M. Kosar, R. C. Sarott, D. Sykes, A. Viray, R. M. Vitale, [...], J. A. Frank, U. Grether, E. M. Carreira, *ACS. Cent. Sci.* **2024**, *10*, 956-968, DOI: <https://doi.org/10.1021/acscentsci.3c01461>.
11. “Chemical specification of E3 ubiquitin ligase engagement by cysteine-reactive chemistry”
R. C. Sarott, I. You, Y.-D. Li, S. Toenjes, P. Seo, K. Donovan, F. Wachter, S. M. Hinshaw, E. Fischer, B. Ebert, N. S. Gray, *J. Am. Chem. Soc.* **2023**, *145*, 21937-21944, DOI: <https://doi.org/10.1021/jacs.3c06622>.
10. “Cobalt-catalyzed aerobic aminocyclization of unsaturated amides for the synthesis of functionalized γ - and δ -lactams” M. Freis, M. Balkenhohl, D. Fischer, T. Georgiev, R. C. Sarott, E. M. Carreira, *Org. Lett.* **2023**, *25*, 6380-6384, DOI: <https://doi.org/10.1021/acs.orglett.3c02390>.
9. “Platform reagents enable synthesis of ligand-directed covalent probes: study of cannabinoid receptor 2 in live cells”, M. Kosar, D. A. Sykes, A. E. G. Viray, R. M. Vitale, R. C. Sarott, [...], E. M. Carreira, *J. Am. Chem. Soc.* **2023**, *145*, 15094-15108, DOI: <https://doi.org/10.1021/jacs.2c13629>.
8. “Detection of cannabinoid receptor type 2 in native cells and zebrafish with a highly potent, cell permeable fluorescent probe”, T. Gazzi, B. Brennecke, K. Atz, C. Korn, D. Sykes, G. Forn-Cuni, P. Pfaff, R. C. Sarott, [...], M. Nazaré, *Chem. Sci.* **2022**, *13*, 5539, DOI: 10.1039/d1sc06659e.
7. “Cannabinoid CB2 receptors modulate microglia function and amyloid dynamics in a mouse model of Alzheimer’s Disease”, S. R. de Martin Esteban, I. Benito-Cuesta, I. Terradillos, A. M. Martinez-

- Relimpio, M. A. Arnanz, G. Ruiz-Pérez, C. Korn, C. Raposo, R. C. Sarott, M. V. Westphal, I. Elezgarai, E. M. Carreira, C. J. Hillard, U. Grether, P. Grandes, T. Grande, J. Romero, *Front. Pharmacol.* **2022**, *13*, Article 84176, DOI: <https://doi.org/10.3389/fphar.2022.841766>.
6. “Light-mediated discovery of surfaceome nanoscale organization and intercellular receptor interaction networks”, M. Müller, F. Gräbnitz, N. Barandun, Y. Shen, F. Wendt, S. N. Steiner, Y. Severin, S. U. Vetterli, M. Mondal, J. R. Prudent, R. Hofmann, M. van Oostrum, R. C. Sarott, A. I. Nesvizhskii, E. M. Carreira, J. W. Bode, B. Snijder, J. A. Robinson, M. J. Loessner, A. Oxenius, B. Wollscheid, *Nature Commun.* **2021**, *12*, 7036 DOI: <https://doi.org/10.1038/s41467-021-27280-x>.
 5. “Optical control of cannabinoid receptor 2-mediated Ca^{2+} release enabled by synthesis of photoswitchable probes”, R. C. Sarott, A. G. Viray, P. Pfaff, A. Sadybekov, G. Rajic, V. Katritch, E. M. Carreira, J. A. Frank, *J. Am. Chem. Soc.* **2021**, *143*, 2, 736, DOI: <https://dx.doi.org/10.1021/jacs.0c08926>.
 4. “Development of high-specificity fluorescent probes to enable cannabinoid type 2 receptor studies in living cells”, R. C. Sarott, M. V. Westphal, P. Pfaff, [...], E. M. Carreira, J. A. Frank, *J. Am. Chem. Soc.* **2020**, *142*, 16953, DOI: <https://dx.doi.org/10.1021/jacs.0c05587>.
 3. “Highly selective, amine-derived cannabinoid receptor 2 probes”, M. V. Westphal, R. C. Sarott, E. A. Zirwes, A. Osterwald, W. Guba, C. Ullmer, U. Grether, E. M. Carreira, *Chem. Eur. J.* **2020**, *26*, 1380, DOI: 10.1002/chem.201904584.
 2. “Synthesis of photoswitchable Δ^9 -tetrahydrocannabinol derivatives enables optical control of cannabinoid receptor 1 signaling”, M. V. Westphal, M. A. Schafroth, R. C. Sarott, [...], E. M. Carreira, J. A. Frank, *J. Am. Chem. Soc.* **2017**, *139*, 18206, DOI: <http://dx.doi.org/10.1021/jacs.7b06456>.
 1. “Synthesis, characterization and initial evaluation of 5-nitro-1-(trifluoromethyl)-3H-1 λ^3 ,2-benziodaoxol-3-one”, N. Santschi, R. C. Sarott, E. Otth, R. Kissner, A. Togni, *Beilstein J. Org. Chem.* **2014**, *10*, 1, DOI: <https://doi.org/10.3762/bjoc.10.1>.

PATENTS

1. G. R. Crabtree, N. S. Gray, R. C. Sarott, S. Gourisankar, A. Krokhotin, T. Zhang “*Transcriptional Chemically Induced Proximity (TCIP) Mediated Treatment of Malignancy and Compositions for Practicing the Same*” U.S. Provisional Application Serial No. 63/406,602, filed 1/19/2023, patent pending.
2. E. M. Carreira, U. Grether, R. C. Sarott, M. Kosar “*Covalent Fluorescent Probes for Cannabinoid Receptor 2*” filed 10/01/2022, patent pending.
3. E. M. Carreira, R. C. Sarott, P. Pfaff, R. Roth, S. Eichenberger, J. Stäubli “*Conversion of THC, CBD and their derivatives to Cannabinol*” US Patent App. 17/839,998, 2023.