

# Stanford

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## Roman Sarott

Postdoctoral Scholar, Stanford Cancer Center

### Bio

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#### HONORS AND AWARDS

- ETH Medal for Outstanding Dissertations, ETH Zürich (May 2022)
- SNF Postdoc.Mobility Fellowship, Swiss National Science Foundation (February 2022)
- El Sohly Award for Excellence in Cannabis Chemistry, American Chemical Society (March 2022)

#### PROGRAM AFFILIATIONS

- SPARK at Stanford

#### STANFORD ADVISORS

- Nathanael Gray, Postdoctoral Faculty Sponsor

### Publications

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#### PUBLICATIONS

- **Flipping the GPCR Switch: Structure-Based Development of Selective Cannabinoid Receptor 2 Inverse Agonists** *ACS CENTRAL SCIENCE*  
Kosar, M., Sarott, R. C., Sykes, D. A., Viray, A. G., Vitale, R., Tomasevic, N., Li, X., Ganzoni, R. Z., Kicin, B., Reichert, L., Patej, K. J., Gomez-Bouzo, U., Guba, et al  
2024
- **Chemical Specification of E3 Ubiquitin Ligase Engagement by Cysteine-Reactive Chemistry.** *Journal of the American Chemical Society*  
Sarott, R. C., You, I., Li, Y. D., Toenjes, S. T., Donovan, K. A., Seo, P., Ordonez, M., Byun, W. S., Hassan, M. M., Wachter, F., Chouchani, E. T., S#abicki, M., Fischer, et al  
2023
- **Cobalt-Catalyzed Aerobic Aminocyclization of Unsaturated Amides for the Synthesis of Functionalized  $\beta$ - and  $\delta$ -Lactams** *ORGANIC LETTERS*  
Freis, M., Balkenhohl, M., Fischer, D. M., Georgiev, T., Sarott, R. C., Carreira, E. M.  
2023; 25 (34): 6380-6384
- **Platform Reagents Enable Synthesis of Ligand-Directed Covalent Probes: Study of Cannabinoid Receptor 2 in Live Cells.** *Journal of the American Chemical Society*  
Kosar, M., Sykes, D. A., Viray, A. E., Vitale, R. M., Sarott, R. C., Ganzoni, R. L., Onion, D., Tobias, J. M., Leippe, P., Ullmer, C., Zirwes, E. A., Guba, W., Grether, et al  
2023; 145 (28): 15094-15108
- **Cannabinoid CB2 Receptors Modulate Microglia Function and Amyloid Dynamics in a Mouse Model of Alzheimer's Disease** *FRONTIERS IN PHARMACOLOGY*  
Ruiz de Martin Esteban, S., Benito-Cuesta, I., Terradillos, I., Martinez-Relimpio, A. M., Arnanz, M., Ruiz-Perez, G., Korn, C., Raposo, C., Sarott, R. C., Westphal, M. V., Elezgarai, I., Carreira, E. M., Hillard, et al  
2022; 13: 841766

- **Detection of cannabinoid receptor type 2 in native cells and zebrafish with a highly potent, cell-permeable fluorescent probe** *CHEMICAL SCIENCE*  
Gazzi, T., Brennecke, B., Atz, K., Korn, C., Sykes, D., Forn-Cuni, G., Pfaff, P., Sarott, R. C., Westphal, M., Mostinski, Y., Mach, L., Wasinska-Kalwa, M., Weise, et al  
2022; 13 (19): 5539-5545
- **Light-mediated discovery of surfaceome nanoscale organization and intercellular receptor interaction networks** *NATURE COMMUNICATIONS*  
Muller, M., Grabnitz, F., Barandun, N., Shen, Y., Wendt, F., Steiner, S. N., Severin, Y., Vetterli, S. U., Mondal, M., Prudent, J. R., Hofmann, R., van Oostrum, M., Sarott, et al  
2021; 12 (1): 7036
- **Optical Control of Cannabinoid Receptor 2-Mediated Ca<sup>2+</sup> Release Enabled by Synthesis of Photoswitchable Probes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Sarott, R. C., Viray, A. G., Pfaff, P., Sadybekov, A., Rajic, G., Katritch, V., Carreira, E. M., Frank, J. A.  
2021; 143 (2): 736-743
- **Development of High-Specificity Fluorescent Probes to Enable Cannabinoid Type 2 Receptor Studies in Living Cells** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Sarott, R. C., Westphal, M., Pfaff, P., Korn, C., Sykes, D. A., Gazzi, T., Brennecke, B., Atz, K., Weise, M., Mostinski, Y., Hompluem, P., Koers, E., Miljus, et al  
2020; 142 (40): 16953-16964
- **Highly Selective, Amine-Derived Cannabinoid Receptor 2 Probes** *CHEMISTRY-A EUROPEAN JOURNAL*  
Westphal, M., Sarott, R. C., Zirwes, E. A., Osterwald, A., Guba, W., Ullmer, C., Grether, U., Carreira, E. M.  
2020; 26 (6): 1380-1387
- **Synthesis of Photoswitchable Delta(9)-Tetrahydrocannabinol Derivatives Enables Optical Control of Cannabinoid Receptor 1 Signaling** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Westphal, M. V., Schafroth, M. A., Sarott, R. C., Imhof, M. A., Bold, C. P., Leippe, P., Dhopeshwarkar, A., Grandner, J. M., Katritch, V., Mackie, K., Trauner, D., Carreira, E. M., Frank, et al  
2017; 139 (50): 18206-18212
- **Synthesis, characterization and initial evaluation of 5-nitro-1-(trifluoromethyl)-3H-1 lambda(3),2-benziodoxol-3-one** *BEILSTEIN JOURNAL OF ORGANIC CHEMISTRY*  
Santschi, N., Sarott, R. C., Otth, E., Kissner, R., Togni, A.  
2014; 10: 1-6