Curriculum Vitae – David Sarlah, Ph.D.

PERSONAL INFORMATION

Address: Rice University
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PERSONAL HISTORY AND PROFESSIONAL EXPERIENCE

Educational Background and Training

2002 – 2006	B.S. in Chemistry	University of Ljubljana, Slovenia
2006 – 2011	Ph.D. in Chemistry	The Scripps Research Institute, CA (Prof. K.C. Nicolaou)
2011 – 2014	Postdoc	ETH Zürich, Switzerland (Prof. Erick M. Carreira)

Academic Positions

2014 – 2021	Assistant Professor of Chemistry, University of Illinois
2019 – present	Adjunct Associate Professor of Chemistry, University of Pavia
2021 – 2024	Associate Professor of Chemistry, University of Illinois
2024 – present	Professor of Chemistry, Rice University

Honors, Recognitions, and Outstanding Achievements

2016	National Science Foundation CAREER Award
2017	Sloan Research Fellowship
2017	Lincoln Excellence for Assistant Professors Scholars Award
2018	Thieme Chemistry Journals Award
2018	ACS Young Investigator
2019	Grammaticakis-Neumann Prize
2019	BMS Unrestricted Grant Award in Synthetic Chemistry
2019	NOS Young Investigator
2019	ERC Starting Grant
2019	Amgen Young Investigator Award
2019	Eli Lilly Grantee Award
2020	FMC New Investigator Award
2020	American Cancer Society Scholar
2020	Kyoto Rising-Star Award Lectureship (Merck Sharp & Dohme)
2021	Arthur C. Cope Scholar Award of the American Chemical Society
2026	Elias J. Corey Award for Outstanding Original Contribution in Organic Synthesis
2027	Mukaiyama Award

PUBLICATIONS

85. Petrovcic, J.; Boyko, Y. D.; Tawatari, T.; Shved, A. S.; Preti, F.; Fattalini, M.; Rossi, S.; Lenardon, G.; Salome, C.; Lefebvre, Q.; Fessard, T. C.; Sarlah, D. Tetrahydro-Dewar Pyridines (THDPs): Conformationally Programmable Piperidine Isosteres. *ACS Central Science* **2026**, *ASAP Article* https://doi.org/10.1021/acscentsci.6c01143

84. Pettipiece, E. L.; Begum, S.; Cacho Bravo, J.; Fei, Y.; Gilbert, R. D.; Martin, M.; **Sarlah, D.** A General Approach to Geminal-Dimethyl Trans-Decalin Terpenoids. *J. Am. Chem. Soc.* **2026**, *148* (28), 30617–30626.

83. Barlock, S. L.; Shved, A. S.; Landers, K. D.; Mai, B. K.; Fujiki, S.; Ryffel, P. C.; Lo, W. Y.; Feng, A. G.; Wade, N. W.; Zhu, L.; Nguyen, V. D.; Petrone, D. A.; Denmark, S. E.; **Sarlah, D.** Stereodivergent Construction of *Trans*-Decalin-Based Terpenoids. *J. Am. Chem. Soc.* **2026**, *148*, 13391–13403.

82. Dommaraju, S. R.; Kandy, S. K.; Ren, H.; Luciano, D. P.; Fujiki, S.; **Sarlah, D.**; Zhao, H.; Chekan, J. R.; Mitchell. D. A. "A Versatile Enzymatic Pathway for Modification of Peptide C-Termini." *ACS Cent. Sci.* **2025**, *11*, 2143–2153.

81. Zhang, J.; Shimakawa, T.; Ungarean, C. N.; Lee, S.; Zhu, Q.; Zhong, S.; **Sarlah, D.** **"**Enantioselective Total Syntheses of Sannamycins A and B." *J. Am. Chem. Soc.* **2025**, *147*, 31476–31481.

80. Yang, C.; Huck, C. J.; Boyko, Y. D.; Ning, S.; Vezonik, U.; Shved, A. S.; Denmark, S. E.; Mai, B. K.; **Sarlah, D.** "Stereodivergent Synthesis of Perhydrobenz[*e*]Indene Terpenoids." *J. Am. Chem. Soc.* **2025**, *147*, 24847–24856.

79. Ryffel, D. B.; Ryffel, P. C.; Martinelli, M.; Pillai, V. R.; **Sarlah, D.** "Stereoselective Total Synthesis of Nimbolide." *J. Am. Chem. Soc.* **2025**, *147*, 14083–14087.

78. Siddiqi, Z.; **Sarlah, D.** "Reimagining Dearomatization: Arenophile-Mediated Single-Atom Insertions and π-Extensions." *Acc. Chem. Res.* **2025**, *58*, 1134-1150.

77. Simmons, E. J.; Ryffel, D. B.; Lopez, D. A.; Boyko, Y. D.; **Sarlah, D.** "Total Syntheses of Scabrolide B, Ineleganolide, and Related Norcembranoids." *J. Am. Chem. Soc.* **2025**, *147*, 130–135.

76. Petrone, D. A.; Maturano, J.; Herbort, J.; Plasek, E. E.; Vivaldo-Nikitovic, J. M.; **Sarlah, D.** "Asymmetric Synthesis of β,β-Disubstituted Alanines via a Sequential C(Sp2)–C(Sp3) Cross Coupling–Hydrogenation Strategy." *Org. Lett.* **2024**, *26*, 6284–6289.

75. Davis, C. W.; Zhang, Y.; Li, Y.; Martinelli, M.; Zhang, J.; Ungarean, C.; Galer, P.; Liu, P.; **Sarlah, D.** "Copper-Catalyzed Dearomative 1,2-Hydroamination." *Angew. Chem. Int. Ed.* **2024**, *63*, e202407281.

74. Gilbert, R.; Davis, C. W.; Bingham, T. W.; **Sarlah, D.** "Palladium-Catalyzed Dearomative 1,4-Hydroamination." *Tetrahedron* **2024**, *163*, 134135. *Special issue honouring Prof. Tom Maimone*

73. Davis, C. W.; Li, Y.; Zhang, Y.; Siddiqi, Z.; Liu, P.; **Sarlah, D.** "Copper-Catalyzed Dearomative Trans-1,2-Carboamination." *ACS Catal.* **2024**, *14*, 10132–10137.

72. Siddiqi, Z.; Bingham, T. W.; Shimakawa, T.; Hesp, K. D.; Shavnya, A.; **Sarlah, D.** "Oxidative Dearomatization of Pyridines." *J. Am. Chem. Soc.* **2024**, *146*, 2358–2363.

71. Angelini, E.; Martinelli, M.; Roà, E.; Ungarean, C. N.; Salome, C.; Lefebvre, Q.; Bournez, C.; Fessard, T. C.; **Sarlah, D.** "Diversification of Simple Arenes into Complex (Amino)cyclitols" *Chem. Eur. J.* **2023**, e202303262

70. Petrovcic, J.; D, Y. B.; Shved, A. S.; Lenardon, G.; Salome, C.; Lefebvre, Q.; Fessard, T.; **Sarlah, D.** "Dewar Pyridines: Conformationally Programmable Piperidine Isosteres." *ChemRxiv* May 25, **2023**. https://doi.org/10.26434/chemrxiv-2023-jgr4j

69. Serrano, R.; Boyko, Y. D.; Hernandez, L. W.; Lotuzas, A.; **Sarlah, D.** Total Syntheses of Scabrolide A and Yonarolide. *J. Am. Chem. Soc.* **2023**, *145* (16), 8805–8809.
68. Ren, H.; Dommaraju, S. R.; Huang, C.; Cui, H.; Pan, Y.; Nesic, M.; Zhu, L.; **Sarlah, D.**; Mitchell, D. A.; Zhao, H. "Genome Mining Unveils a Class of Ribosomal Peptides with Two Amino Termini." *Nature Communications* **2023**, *14*, 1624.
67. Matsuoka, W.; Kawahara, K. P.; Ito, H.; **Sarlah, D.**; Itami, K. "π-Extended Rubrenes via Dearomative Annulative π-Extension Reaction." *J. Am. Chem. Soc.* **2023**, *145*, 658–666.
66. Huck, C. J.; Boyko, Y. D.; **Sarlah, D.** "Dearomative Logic in Natural Product Total Synthesis." *Nat. Prod. Rep.* **2022**, *39*, 2231–2291.
65. Roy, P.; Dennis, D. G.; Eschbach, M. D.; Anand, S. D.; Xu, F.; Maturano, J.; Hellman, J.; **Sarlah, D.**; Das, A. "Metabolites of Cannabigerol Generated by Human Cytochrome P450s Are Bioactive." *Biochemistry* **2022**, *61*, 2398–2408
64. Hooper, A. R.; Oštrek, A.; Milian-Lopez, A.; **Sarlah, D**. "Bioinspired Total Synthesis of Pyritide A2 through Pyridine Ring Synthesis." *Angew. Chem. Int. Ed.,* **2022**, *61*, e202212299.
63. Mathieu, V.; Laguera, B.; Masi, M.; Dulanto, S. A.; Bingham, T. W.; Hernandez, L. W.; **Sarlah, D.**; Evidente, A.; Lafontaine, D. L. J.; Kornienko, A.; Lane, M. A. "Amaryllidaceae Alkaloids Decrease the Proliferation, Invasion, and Secretion of Clinically Relevant Cytokines by Cultured Human Colon Cancer Cells." *Biomolecules*, **2022**, *12*, 1267.
62. Nesic, M.; Ryffel, D. B.; Maturano, J.; Shevlin, M.; Pollack, S. R.; Jr, D. R. G.; Trigo-Mouriño, P.; Zhang, L.-K.; Schultz, D.; Dunn, J. M. M.; Campeau, L.-C.; Patel, N. R.; Petrone, D. A.; **Sarlah, D.** "Total Synthesis of Darobactin A." *J. Am. Chem. Soc.* **2022**, *144*, 14026–14030.
61. Piacentini, P.; Bingham, T. W.; **Sarlah, D.** "Dearomative Ring Expansion of Polycyclic Arenes" *Angew. Chem. Int. Ed.,* **2022**, *61*, e202208014.
60. Ungarean, C. N.; Galer, P.; Zhang, Y.; Lee, K. S.; Ngai, J. M.; Lee, S.; Liu, P.; **Sarlah, D.** "Synthesis of (+)-ribostamycin by catalytic, enantioselective hydroamination of benzene." *Nature Synthesis*, **2022**, *1*, 542–547.
59. Dennis, D. G.; Anand, S. D.; Lopez, A. J.; Petrovčič, J.; Das, A.; **Sarlah, D.** "Synthesis of the Cannabimovone and Cannabifuran Class of Minor Phytocannabinoids and Their Anti-Inflammatory Activity." *J. Org. Chem.* **2022**, *87*, 6075–6086.
58. Siddiqi, Z.; **Sarlah, D.** "Electrochemical Dearomatization of Commodity Polymers." *J. Am. Chem. Soc.* **2021**, *143,* 21264–21269.
57. Bingham, T.W.; Hernandez, L.W.; **Sarlah, D.** "Amaryllidaceae isocarbostyril alkaloids." *Strategies and Tactics in Organic Synthesis* **2021**, *15*, pp. 1–52.
56. Matsuoka, W.; Ito, H.; **Sarlah, D.**; Itami, K. "Diversity-Oriented Synthesis of Nanographenes Enabled by Dearomative Annulative π-Extension." *Nature Communications* **2021**, *12*, 3940.
55. Okumura, M.; **Sarlah, D.** "4-Methyl-1,2,4-Triazoline-3,5-Dione." In *Encyclopedia of Reagents for Organic Synthesis*; American Cancer Society, **2021**; pp 1–11.
54. Bemis, C. Y.; Ungarean, C. N.; Shved, A. S.; Jamieson, C. S.; Hwang, T.; Lee, K. S.; Houk, K. N.; **Sarlah, D.** "Total Synthesis and Computational Investigations of Sesquiterpene-Tropolones Ameliorate Stereochemical Inconsistencies and Resolve an Ambiguous Biosynthetic Relationship." *J. Am. Chem. Soc.* **2021**, *143*, 6006–6017.
53. Huck, C. J.; Boyko, Y. D.; **Sarlah, D.** "Total Synthesis of Stelletins through an Unconventional Annulation Strategy." *Acc. Chem. Res.* **2021**, *54*, 1597–1609.
52. Boyko, Y. D.; Huck, C. J.; Ning, S.; Shved, A. S.; Yang, C.; Chu, T.; Tonogai, E. J.; Hergenrother, P. J.; **Sarlah, D.** "Synthetic Studies on Selective, Proapoptotic Isomalabaricane Triterpenoids Aided by Computational Techniques." *J. Am. Chem. Soc.* **2021**, *143*, 2138–2155.

51. Siddiqi, Z. R.; Ungarean, C. N.; Bingham, T. W.; **Sarlah, D.** "Development of a Scalable and Sublimation-Free Route to MTAD." *Org. Process Res. Dev.* **2020**, *24*, 2953–2959.

50. Hudson, G. A.; Hooper, A. R.; DiCaprio, A. J.; **Sarlah, D.**; Mitchell, D. A. "Structure Prediction and Synthesis of Pyridine-Based Macrocyclic Peptide Natural Products." *Org. Lett.* **2021**, *23*, 253–256.

49. Okumura, M.; **Sarlah, D.** "Arenophile-Mediated Photochemical Dearomatization of Nonactivated Arenes." *CHIMIA* **2020**, *74*, 577–583.

48. Huck, C. J.; **Sarlah, D.** "Shaping Molecular Landscapes: Recent Advances, Opportunities, and Challenges in Dearomatization." *Chem*, **2020**, *6*, 1589–1603.

47. Nesic, M.; Kincanon, M.; Ryffel, D. B.; **Sarlah, D.** "A new approach towards the synthesis of bielschowskysin: Synthesis and photochemistry of an advanced macrocyclic enedione intermediate." *Tetrahedron,* **2020**, *76*, 131318 *[Special Tetrahedron Award Issue].*

46. Siddiqi, Z.; Wertjes, W. C.; **Sarlah, D.** "Chemical Equivalent of Arene Monooxygenases: Dearomative Synthesis of Arene Oxides and Oxepines." *J. Am. Chem. Soc.* **2020**, *142*, 10125–10131.

45. Okumura, M.; **Sarlah, D.** "Visible-Light-Induced Dearomatizations." *Eur. J. Org. Chem,* **2020**, *10*, 1259-1273.

44. Tang, C.; Okumura, Deng, H.; **Sarlah, D.** "Palladium-Catalyzed Dearomative syn-1,4-Oxyamination." *Angew. Chem. Int. Ed.,* **2019**, *58*, 15762–15766

43. Boyko, Y.; Huck, C. J.; **Sarlah, D.** "The Total Synthesis of Isomalabaricane Triterpenoids." *J. Am. Chem. Soc.* **2019**, *141*, 14131–14135.

42. Hernandez, L. H.; **Sarlah, D.** "Empowering Synthesis of Complex Natural Products." *Chem. Eur. J.* **2019**, *25*, 13248–13270.

41. Tang, C.; Okumura, M.; Zhu, Y.; Hooper, A.; Zhou, Y.; Lee, Y.-H.; **Sarlah, D.** "Palladium-Catalyzed Dearomative syn-1,4-Carboamination with Grignard Reagents." *Angew. Chem. Int. Ed.,* **2019**, *58*, 10245–10249.

40. Dennis, D. G.; Okumura, M.; **Sarlah, D.** "Synthesis of Idarubicinone via Global Functionalization of Tetracene." *J. Am. Chem. Soc.* **2019**, *141,* 10193–10198.

39. Bingham, T. W.; Hernandez, L. W.; Olson, D. G.; Svec, R. L.; Hergenrother, P. J.; **Sarlah, D.** "Enantioselective Synthesis of Isocarbostyril Alkaloids and Analogs Using Catalytic Dearomative Functionalization of Benzene." *J. Am. Chem. Soc.* **2019**, *141*, 657–670.

38. Wertjes, W. C.; Okumura, M.; **Sarlah, D.** "Palladium-Catalyzed Dearomative *syn*-1,4-Diamination." *J. Am. Chem. Soc.* **2019**, *141*, 163–167.

37. Wertjes, W. C.; Southgate, E. H.; **Sarlah, D.** "Recent advances in chemical dearomatization of nonactivated arenes." *Chem. Soc. Rev.* **2018**, *47*, 7996–8017.

36. Hernandez, L. W.; Klöckner, U.; Pospech, J.; Hauss, L.; **Sarlah, D.** "Nickel-Catalyzed Dearomative *trans*-1,2-Carboamination." *J. Am. Chem. Soc.* **2018**, *140*, 4503–4507.

35. Okumura, M.; **Sarlah, D.** "Arenophile-Mediated Dearomative Functionalization Strategies." *Synlett* **2018**, *29*, 845–855.

34. Okumura, M.; Shved, A. S.; **Sarlah, D.** "Palladium-Catalyzed Dearomative *syn*-1,4-Carboamination." *J. Am. Chem. Soc.* **2017**, *139*, 17787–17790.

33. Hernandez, L. W.; Pospech, J.; Kloeckner, U.; Bingham, T. W.; **Sarlah, D.** "Synthesis of (+)-Pancratistatins via Catalytic Desymmetrization of Benzene." *J. Am. Chem. Soc.* **2017**, *139*, 15656–15659.

32. Southgate, E. H.; Holycross, D. R.; **Sarlah, D.** "Total Synthesis of Lycoricidine and Narciclasine by Chemical Dearomatization of Bromobenzene." *Angew. Chem. Int. Ed.* **2017**, *56*, 15049–15052.

31. Okumura, M.; Nakamata, S. M.; Pospech, J.; **Sarlah, D.** "Arenophile-Mediated Dearomative Reduction." *Angew. Chem. Int. Ed.* **2016**, *55*, 15910–15914.

30. Southgate, E. H.; Pospech, J.; Fu, J.; Holycross, D. R.; **Sarlah, D.** "Dearomative Dihydroxylation with Arenophiles." *Nature Chem.* **2016**, *8*, 922–928.

29. Ungarean, C. N.; Southgate, E. H.; **Sarlah, D.** "Enantioselective Polyene Cyclizations." *Org. Biomol. Chem.* **2016**, *14*, 5454–5467.

28. Schafroth, M. A.; Rummelt, S. M.; **Sarlah, D.**, Carreira, E. M. "Enantioselective Iridium-Catalyzed Allylic Cyclizations." *Org. Lett.*, **2017**, *19*, 3235–3238.

27. Hamilton, J. Y.; **Sarlah, D.**; Carreira, E. M. "Iridium-Catalyzed Enantioselective Allylic Alkylation with Functionalized Organozinc Bromides." *Angew. Chem. Int. Ed.* **2015**, *54*, 7644–7647.

26. Shemet, A.; **Sarlah, D.**; Carreira, E. M. "Stereochemical Studies of the Opening of Chloro Vinyl Epoxides: Cyclic Chloronium Ions as Intermediates." *Org. Lett.* **2015**, *17*, 1878–1881.

25. Hamilton, J. Y.; **Sarlah, D.**; Carreira, E. M. "Iridium-Catalyzed Enantioselective Allylic Vinylation with Potassium Alkenyltrifluoroborates." *Org. Synth.* **2015**, *92*, 1–12.

24. Schafroth, M. A.; Zuccarello, G.; Krautwald, S.; **Sarlah, D.**; Carreira, E. M. "Stereodivergent Total Synthesis of Δ^9-Tetrahydrocannabinols." *Angew. Chem. Int. Ed.* **2014**, *53*, 13898–13901.

23. Hamilton, J. Y.; Hauser, N.; **Sarlah, D.**; Carreira, E. M. "Iridium-Catalyzed Enantioselective Allyl–Allylsilane Cross-Coupling." *Angew. Chem. Int. Ed.* **2014**, *53*, 10759–10762.

22. Krautwald, S.; Schafroth, M. A.; **Sarlah, D.**; Carreira, E. M. "Stereodivergent α–Allylation of Linear Aldehydes with Dual Iridium and Amine Catalysis." *J. Am. Chem. Soc.* **2014**, *136*, 3020–3023.

21. Hamilton, J. Y.; **Sarlah, D.**; Carreira, E. M. "Iridium-Catalyzed Enantioselective Allyl–Alkene Coupling." *J. Am. Chem. Soc.* **2014**, *136*, 3006–3009.

20. Everitt, A. R.; Clare, S.; Perreira, J. M.; Savidis, G.; Aker, A. M.; John, S. P.; **Sarlah, D.**; Carreira, E. M.; Elledge,S. J.; Kellam, P.; Brass, A. L. "Amphotericin B Increases Influenza A Virus Infection by Preventing IFITM3-Mediated Restriction." *Cell Reports* **2013**, 5*,* 895–908.

19. Krautwald, S.; **Sarlah, D.**; Schafroth, M. A.; Carreira, E. M. "Enantio- and Diastereodivergent Dual Catalysis: α–Allylation of Branched Aldehydes." *Science* **2013**, *340*, 1065–1068.

18. Hamilton, J. Y.; **Sarlah, D.**; Carreira, E. M. "Iridium-Catalyzed Enantioselective Allylic Alkynylation." *Angew. Chem. Int. Ed.* **2013**, *52*, 7532–7535.

17. Hamilton, J. Y.; **Sarlah, D.**; Carreira, E. M. "Iridium-Catalyzed Enantioselective Allylic Vinylation." *J. Am. Chem. Soc.* **2013**, *135*, 994–997.

16. Schafroth, M. A.; **Sarlah, D.**; Krautwald, S.; Carreira, E. M. "Iridium-Catalyzed Enantioselective Polyene Cyclization." *J. Am. Chem. Soc.* **2012**, *134*, 20276–20278.

15. Nicolaou, K. C.; Lu, M.; Totokotsopoulos, S.; Heretsch, P.; Giguère, D.; Sun, Y.; **Sarlah, D.**; Nguyen, T. H.; Wolf, I. C.; Smee, D. F.; Day, C. W.; Bopp, S.; Winzeler, E. A. "Synthesis and Biological Evaluation of Epidithio-, Epitetrathio-, and bis-(Methylthio)diketopiperazines: Synthetic Methodology, Enantioselective Total Synthesis of Epicoccin G, 8,8'-epi-ent-Rostratin B, Gliotoxin, Gliotoxin G, Emethallicin E, and Haematocin and Discovery of New Antiviral and Antimalarial Agents." *J. Am. Chem. Soc.* **2012**, *134*, 17320–17332.

14. Nicolaou, K. C.; Sun, Y.; **Sarlah, D.**; Zhan, W.; Wu, T. R. "Bioinspired Synthesis of Hirsutellones A, B and C." *Org. Lett.* **2011**, *13*, 5708–5710

13. Nicolaou, K. C.; Totokotsopoulos, S.; Giguere, D.; Sun, Y.; **Sarlah, D.** "Total Synthesis of Epicoccin G." *J. Am. Chem. Soc.* **2011**, *133*, 8150–8153.

12. Nicolaou, K. C.; Sanchini, S.; **Sarlah, D.**; Lu, G.; Wu, T. R.; Nomura, D. K.; Cravatt, B. F.; Cubitte, B.; de la Torre, J. C.; Hessell, A. J.; Burton, D. R. "Design, Synthesis, and Biological Evaluation of a Biyouyanagin Compound Library." *Proc. Natl. Acad. Sci. U. S. A.* **2011**, *108*, 6715–6720.

11. Nicolaou, K. C.; Sun, Y.; Korman, H.; **Sarlah, D.** "Asymmetric Total Synthesis of Cylindrocyclophanes A and F Through Cyclodimerization and Ramberg–Bäcklund Reaction." *Angew. Chem. Int. Ed.* **2010**, *49*, 5875–5878.
10. Nicolaou, K. C.; Sanchini, S.; Wu, T. R.; **Sarlah, D.** "Total Synthesis and Structural Revision of Biyouyanagin B." *Eur. J. Chem.* **2010**, *16*, 7678–7682.
9. Nicolaou, K. C.; **Sarlah, D.**; Wu, T. R.; Zhan, W. Q. "Total Synthesis of Hirsutellone B." *Angew. Chem. Int. Ed.* **2009**, *48*, 6870–6874.
8. Nicolaou, K. C.; Reingruber, R.; **Sarlah, D.** Brase, S., "Enantioselective Intramolecular Friedel–Crafts-Type α–Arylation of Aldehydes." *J. Am. Chem. Soc.* **2009**, *131*, 2086–2087.
7. Nicolaou, K. C.; Wu, T. R.; **Sarlah, D.**; Shaw, D. M.; Rowcliffe, E.; Burton, D. R. "Total Synthesis, Revised Structure, and Biological Evaluation of Biyouyanagin A and Analogues Thereof." *J. Am. Chem. Soc.* **2008**, *130*, 11114–11121.
6. Nicolaou, K. C.; **Sarlah, D.**; Shaw, D. M. Total Synthesis and Revised Structure of Biyouyanagin A, *Angew. Chem. Int. Ed.* **2007**, *46*, 4708–4711.
5. Dai, M.; **Sarlah, D.**; Yu, M.; Danishefsky, S. J.; Jones, G. O.; Houk, K. N. "Highly Selective Diels–Alder Reactions of Directly Connected Enyne Dienophiles." *J. Am. Chem. Soc.* **2007**, *129*, 645–657.
4. Nicolaou, K. C.; Pihko, P. M.; Bernal, F.; Frederick, M. O.; Qian, W. Y.; Uesaka, N.; Diedrichs, N.; Hinrichs, J.; Koftis, T. V.; Loizidou, E.; Petrovic, G.; Rodriquez, M.; **Sarlah, D.**; Zou, N. "Total Synthesis and Structural Elucidation of Azaspiracid-1. Construction of Key Building Blocks for Originally Proposed Structure, *J. Am. Chem. Soc.* **2006**, *128*, 2244–2257.
3. Nicolaou, K. C.; Bulger, P. G.; **Sarlah, D.** "Metathesis Reactions in Total Synthesis." *Angew. Chem. Int. Ed.* **2005**, 44, 4490–4527.
2. Nicolaou, K. C.; Bulger, P. G.; **Sarlah, D.** "Palladium-Catalyzed Cross-Coupling Reactions in Total Synthesis." *Angew. Chem. Int. Ed.* **2005**, *44*, 4442–4489.
1. Zorko, M.; Majerle, A.; **Sarlah, D.**; Keber, M. M.; Mohar, B.; Jerala, R. "Combination of Antimicrobial and Endotoxin-Neutralizing Activities of Novel Oleoylamines." *Antimicrob. Agents Chemoter*. **2005**, *49*, 2307–2313.

Patents:

1. Hernandez, L. W.; Pospech, J.; **Sarlah, D.** "METAL CATALYZED DEAROMATIVE 1,2-CARBOAMINATION." U.S. Patent Application No. 16/011,178, **2018**
2. Hernandez, L. W.; Bingham, T. W.; **Sarlah, D.** " ISOCARBOSTYRIL ALKALOIDS AND FUNCTIONALIZATION THEREOF." U.S. Patent Application No. 62/775,521, **2018**.

INVITED LECTURES AND INVITED CONFERENCE PRESENTATIONS

1. ACS 2016 Central Regional Meeting (CERM), Covington, KY, May 2016.
2. Nicolaou Cutting Edge Lineage Chemistry Symposium, Rice University, Huston, TX, October 2016.
3. University of Missouri, Columbia, MO, October 2016.
4. Gordon Research Conference: Heterocycles, Newport, RI, June 2017.
5. AbbVie, Chicago, IL, June 2017.
6. Gilead, Foster City, CA, August 2017.
7. Merck, West Point, PA, September 2017.
8. 8th Chicago Organic Symposium, Chicago, IL, September 2017.
9. Amgen, Cambridge, MA, September 2017.
10. UT San Antonio, San Antonio, TX, December 2017.

11. ACS Symposium on Frontiers in Synthetic Organic Photochemistry, 255th ACS National Meeting, New Orleans, LA, March 2018.
12. National Fresenius Award Symposium, 255th ACS National Meeting, New Orleans, LA, March 2018.
13. Bristol-Myers Squibb, Lawrenceville and New Brunswick, NJ, May 2018.
14. University of Zürich, Zürich, Switzerland, May 2018.
15. University of Basel, Basel, Switzerland, May 2018.
16. University of Geneva, Geneva, Switzerland, May 2018.
17. University of Konstanz, Konstanz, Germany, May 2018.
18. Janssen Pharmaceuticals, La Jolla, CA, May 2018.
19. Gordon Research Conference: Natural Products, Andover, NH, July 2018.
20. Gordon Research Conference: Organic Reactions and Processes, Easton, MA, July 2018.
21. Gordon Research Conference: Stereochemistry, Newport, RI, July 2018.
22. Nagoya University, Nagoya, Japan, August 2018.
23. University of Tokyo, Tokyo, Japan, August 2018.
24. Waseda University, Tokyo, Japan, August 2018.
25. Tohoku University, Sendai, Japan, August 2018.
26. Oxford University, Oxford, UK, August 2018.
27. Young Investigator Symposium, 256th ACS National Meeting, Boston, MA, August 2018.
28. CSIR-Indian Institute of Chemical Technology, Hyderabad, India, August 2018.
29. 24th Annual Meeting of the Slovenian Chemical Society, Portoroz, Slovenia, September 2018.
30. University of Münster, Münster, Germany, October 2018.
31. RWTH Aachen University, Aachen, Germany, October 2018.
32. Ludwig Maximilian University of Münich (LMU), Münich, Germany, October 2018.
33. Technical University of Münich (TUM), Münich, Germany, October 2018.
34. University of Regensburg, Regensburg, Germany, October 2018
35. Merck Process Research & Development, Rahway, NJ, October 2018.
36. Merck Lecture, Columbia University, New York City, NY, October 2018.
37. University of Chicago, Chicago, IL November 2018.
38. Genentech, San Francisco, CA, November 2018.
39. Marquette University, Milwaukee, WI, November 2018.
40. University of Michigan, Ann Arbor, MI, January 2019.
41. University of Vienna, Vienna, Austria, January 2019.
42. University of Indiana, Bloomington, IN, March 2019.
43. UC Irvine, Irvine, CA, March 2019.
44. Boston College, Boston, MA, April 2019.
45. Novartis Lecture, Princeton University, Princeton, NJ, April 2019.
46. Yale University, New Haven, CT, April 2019.
47. Portland State University, Portland, OR, April 2019.
48. Oregon State University, Corvallis, OR, April 2019.
49. 2019 Great Lakes Regional Meeting, Lisle, IL, May 2019.
50. Chugai Pharma, Kamakura Institute, Tokyo, Japan, May 2019.
51. Mitsubishi Tanabe, Pharma Corporation, Yokohama, Japan, May 2019.

52. Daiichi Sankyo, Shinagawa R&D Center, Shinagawa, Japan, May 2019.
53. Asahi Kasei Pharma, Shizuoka, Japan, May 2019.
54. Kyowa Kirin Pharmaceutical Development, Shizuoka, Japan, May 2019.
55. JT Central Pharmaceutical Research Institute, Osaka, Japan, May 2019.
56. National Organic Symposium, Bloomington, IN, June 2019.
57. Auburn University, Auburn, AL, August 2019.
58. Grammaticakis-Neumann Prize Lecture, Swiss Chemical Society Symposium, Zurich, Switzerland, September 2019.
59. 2019 Padwa Lecture, Emory University, Atlanta, GA, September 2019.
60. Amgen Symposium, Amgen, Thousand Oaks, CA, October 2019.
61. Fudan University, Shanghai, China, October 2019.
62. UCLA, Los Angeles, CA, November 2019.
63. UNC Chapel Hill, Chapel Hill, NC, November 2019.
64. Keio University, Tokyo, Japan, December 2019.
65. RIKEN, Wakō, Japan, December 2019.
66. Tokyo Institute of Technology, Tokyo, Japan, December 2019.
67. Penn State, University Park, PA, February 2020.
68. 22nd Bristol-Myers Squibb Unrestricted Research Grant and Graduate Fellowship Awards Symposium, Virtual Seminar, September 2020.
69. Glaxo Smith Kline, Global Virtual Seminar, October 2020.
70. UT Dallas, Virtual Seminar, November 2020.
71. University of Padova, Italy, July 2021.
72. The 19th Biennial Lilly Grantee Symposium, Virtual Seminar, September 2021.
73. Boehringer Ingelheim, Global Virtual Seminar, October 2021.
74. FMC Corporation, Stine Research Center, Newark, DE, October 2021.
75. Novartis Lecture, Boston University, Boston, MA, October 2021.
76. Purdue University, West Lafayette, IN, January 2022.
77. A.C. Cope Award Symposium, ACS National Meeting, San Diego, March 2022.
78. Organic Synthesis Lecture, UC Berkely, Berkely, CA, March 2022.
79. Bristol-Myers Squibb Lecture, MIT, Cambridge, MA, April 2022.
80. Boehringer Ingelheim Lecture, Scripps Research Institute, La Jolla, CA, April 2022.
81. 18th Meeting of the French-American Chemical Society, Charleston, SC, June 2022.
82. Pharmaron, Virtual Lecture Series, September, 2022.
83. Reaxys–Chem, Virtual Seminar, September, 2022.
84. AbbVie, Virtual Seminar, September, 2022.
85. Amgen, Thousand Oaks, CA, September, 2022.
86. Rice University, Huston, TX, October 2022.
87. Gilead, Foster City, CA, October 2022.
88. Boehringer Ingelheim, Ridgefield, CT, November 2022
89. KYOTO Rising-Star Lecture, Kyoto University, Kyoto, Japan, December 2022.
90. Nagoya University, Nagoya Japan, December 2022.
91. Osaka University, Osaka, Japan, December 2022.
92. University of Tokyo, Tokyo, Japan, December 2022.

93. Tokyo Institute of Technology, Tokyo, Japan, December 2022.
94. WIPOS, Honolulu, HI, December 2022.
95. 2022-2023 Fagnou Lecture, University of Ottawa, Otawa, Canada, January 2023.
96. 46th Annual Meeting of the Brazilian Chemical Society, Águas de Lindóia, Brazil, May 2023.
97. 70th GRC on Natural Products and Bioactive Compounds, Andover, NH, July 2023.
98. International Symposium on Advances in Synthetic and Medicinal Chemistry, Zagreb, Croatia, September 2023.
99. Kharkiv Chemical Seminar, Virtual seminar, November 2023.
100. UT Southwestern, Dallas, November 2023.
101. Pregl colloquium, National Institute of Chemistry, Ljubljana, Slovenia, December 2023.
102. Schrödinger, New York City, NY, February 2024.
103. ACS National Meeting, New Orleans, LA, March 2024.
104. University of Rennes, Rennes, France, October 2024.
105. The Art and Science of Total Synthesis of Natural and Designed Molecules for Biology and Medicine: Synthetic Strategies and Methods, Paris, France, October 2024.
106. Shanghai Institute of Organic Chemistry, Shanghai, China, October 2024.
107. Westlake University, Hangzhou, Zhejiang, China, October 2024.
108. Wuhan University, Wuhan, Hubei, China, October 2024.
109. Huazhong University of Science and Technology, Wuhan, Hubei, China, October 2024.
110. UC Davis, Davis, CA, January 2025.
111. University of South Florida, Tampa, FL, February 2025.
112. University of Florida, Gainsville, FL, February 2025.
113. Indian Institute of Technology Kanpur, Kanpur, India, March 2025.
114. XXIV NOST Organic Chemistry Conference, Agra, India, March 2025.
115. Paraza Lecturship, University of Montreal, Montreal, Canada, April 2025.
116. Paraza Pharma, Montreal, Canada, April 2025.
117. Advancing Medicinal Chemistry and Chemical Biology, Lille, France, June 2025.
118. Fudan University, Shanghai, China, July 2025.
119. Gilead, Foster City, California, September 2025.
120. Transformations through C-C Bond Cleavage, Sanya, China, September 2025.
121. Boston College, Boston, MA, November 2005.
122. Solvay Workshop on “Aromaticity: Celebrating Benzene 200 Years”, International Solvay Institutes, Brussels, Belgium, December 2025.
123. Pacifichem, Modern Approaches to Total Synthesis in The 2020s and Beyond, Honolulu, HI, December 2025.
124. Pacifichem, Recent Advances In Skeletal Editing And Related Reactions, Honolulu, HI, December 2025.
125. Nagoya-Rice Joint Chemistry Symposium, virtual symposium, January 2026.
126. 5th Alpine Winter Conference on Medicinal and Synthetic Chemistry, St. Anton, Austria, January 2026.
127. Stanford University, Palo Alto, CA, February 2026.
128. Dong-A University, Busan, Korea, March 2026.
129. KAIST, Daejeon, Korea, March 2026.

130. Seoul National University, Korea, March 2026.
131. ACS National Meeting, Atlanta, GA, March 2026.
132. Baylor University, Waco, TX, April 2026.
133. TexSyn, University of Dallas, Dallas, TX, May 2026.
134. Gordon Research Conference: Heterocycles, Newport, RI, June 2026.
135. J&J Innovative Medicine, Spring House, PA, July 2026.
136. DOC Graduate Research Symposium, Emory University, Atlanta, GA, July 2026.
137. ETH Zürich, Zürich, Switzerland, August 2026.
138. 13th Pharmaron Symposium, Beijing, China, 2026.