



## Paul Wender

Francis W. Bergstrom Professor and Professor, by courtesy, of Chemical and Systems Biology  
Chemistry

### CONTACT INFORMATION

- **Administrative Contact**

Kathy Kieffer

**Email** kkieffer@stanford.edu

**Tel** (650) 392-5313

### Bio

---

#### BIO

The Wender Group addresses unsolved problems in chemistry, synthesis, biology, medicine, and materials science using new computational tools, new reactions, reagents, strategies and design. Leveraging affiliations with the Medical School, Imaging Center, Chemical Biology Program and Molecular Therapeutics Program as well as numerous internal and external collaborations, the lab emphasizes the use of chemistry, design and synthesis to address problems of significance in biology and medicine, including eradication of HIV/AIDS, overcoming resistant cancer, cancer immunotherapy and treating cognitive disorders such as Alzheimer's disease.

Paul Wender received his B.S. degree from Wilkes University and his Ph.D. in chemistry from Yale University. He was an NIH Postdoctoral Fellow at Columbia University. He served on the faculty at Harvard University and joined the faculty at Stanford University where he is the Francis W. Bergstrom Professor of Chemistry and holds a courtesy appointment in the Department of Chemical and Systems Biology. Professor Wender's research has been recognized with numerous awards including recently the Tetrahedron Prize, Prelog Medal (Swiss Federal Institute of Technology), Arthur Cope Award (American Chemical Society), Cohen Award for Excellence in Medicinal Chemistry (Israel Chemical Society), and Research Award of the German Bioactives and Biotechnology Leibniz Alliance. He has also been recognized with several teaching awards including the Hoagland Prize, Bing Teaching Award, and the Dean's Teaching Award. He is an elected member of the US National Academy of Sciences, a foreign member of the Royal Spanish Academy of Sciences, and a fellow of the American Association for the Advancement of Science and the American Academy of Arts and Sciences.

#### ACADEMIC APPOINTMENTS

- Professor, Chemistry
- Professor (By courtesy), Chemical and Systems Biology
- Member, Bio-X
- Faculty Fellow, Sarafan ChEM-H
- Member, Stanford Cancer Institute

#### HONORS AND AWARDS

- Research Award of the German Bioactives and Biotechnology, Leibniz Alliance (2016)
- Arthur C. Cope Award, American Chemical Society (2015)

- Cohen Award for Excellence in Medicinal Chemistry, Israel Chemical Society (2015)
- Office of Technology Licensing Innovator Award, Stanford University (2015)
- Prelog Medal, ETH, Switzerland (2013)
- Tetrahedron Prize for Creativity in Organic Chemistry, Tetrahedron Publications (2012)
- Wilbur Lucius Cross Medal (Yale Graduate Alumni), Yale University (2010)
- The Hamilton Award, University of Nebraska (2008)
- MERIT Award, National Institutes of Health (2006)
- H.C. Brown Award for Creative Research in Synthetic Methods, American Chemical Society (2003)
- MERIT Award, National Institutes of Health (2003)
- Member, National Academy of Science (2003)
- Fellow, American Association for the Advancement of Science (2001)
- Dean's Award for Distinguished Teaching, Stanford University (2000)
- Award for Creative work in Synthetic Organic Chemistry, American Chemical Society (1998)
- Pfizer Research Award for Synthetic Organic Chemistry, American Chemical Society (1995)
- Bing Teaching Award, Stanford University (1992)
- Fellow, American Academy of Arts and Sciences (1992)
- ASSU Teaching Award, Stanford University ASSU (1991)
- Alexander von Humboldt Stiftung Award, Alexander von Humboldt Foundation (1991)
- Hoagland Prize for Undergraduate Teaching, Stanford University (1991)
- Arthur C. Cope Scholar Award, American Chemical Society (1990)
- Ernest Guenther Award, American Chemical Society (1988)
- Stuart Award for Excellence in Chemistry, ICI Pharmaceutical Group (1988)
- Dreyfus Teacher Scholar Award, Camille and Henry Dreyfus Foundation (1980)

## PROFESSIONAL EDUCATION

- Ph.D., Yale University , Chemistry (1973)
- B.S., Wilkes College , Chemistry (1969)

## PATENTS

- Paul Wender, Jung-Min Kee, Jeffrey Warrington. "United States Patent 8,067,632 A Process to Produce Prostratin and Structural or Functional Analogs Thereof", Leland Stanford Junior University, Nov 29, 2011
- Christina Cooley, Erika Geihe Stanzl, Robert Waymouth, Paul Wender. "United States Patent 61,531,495 Amphipathic Co-Oligomers for the Delivery of SIRNA", Leland Stanford Junior University, Sep 11, 2011
- Paul Wender, Lars Heumann, Rainer Kramer, Carolyn Gauntlett, Elizabeth Beans. "United States Patent 12/839,808 Prostratin Analogs, Bryostatin Analogs, Prodrugs, Synthetic Methods, and Methods of Use", Leland Stanford Junior University, Jul 20, 2010

## LINKS

- The Wender Group: <https://web.stanford.edu/group/pawender/>

## Research & Scholarship

---

### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Molecular imaging, therapeutics, drug delivery, drug mode of action, synthesis

## Teaching

---

### COURSES

#### 2023-24

- Advanced Organic Chemistry I: CHEM 221 (Aut)

#### 2022-23

- Advanced Organic Chemistry I: CHEM 221 (Aut)
- Structure and Reactivity of Organic Molecules: CHEM 33 (Win)

#### 2021-22

- Advanced Organic Chemistry I: CHEM 221 (Aut)
- Structure and Reactivity of Organic Molecules: CHEM 33 (Win)

#### 2020-21

- Structure and Reactivity of Organic Molecules: CHEM 33 (Win)

### STANFORD ADVISEES

#### Doctoral Dissertation Reader (AC)

Hayden Anderson, Lawrence Berg, Brandon Derstine, Amy Latuski, KE ZHENG

#### Postdoctoral Faculty Sponsor

Sukhun Lee, Pavan Yadav

#### Doctoral Dissertation Advisor (AC)

Zach Gentry, Rami Hourani, Zhijian Li, Owen McAteer, Harrison Rahn, Jiuzhi Sun

### GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Chemical and Systems Biology (Phd Program)

## Publications

---

### PUBLICATIONS

- **TPPB modulates PKC activity to attenuate neuroinflammation and ameliorate experimental multiple sclerosis.** *bioRxiv : the preprint server for biology*  
Shanmukha, S., Godfrey, W. H., Gharibani, P., Lee, J. J., Guo, Y., Deng, X., Wender, P. A., Kornberg, M. D., Kim, P. M.  
2024
- **Vancomycin-Polyguanidino Dendrimer Conjugates Inhibit Growth of Antibiotic-Resistant Gram-Positive and Gram-Negative Bacteria and Eradicate Biofilm-Associated *S.aureus*.** *ACS infectious diseases*  
Chosy, M. B., Sun, J., Rahn, H. P., Liu, X., Brcic, J., Wender, P. A., Cegelski, L.  
2024
- **Immunologic and virologic parameters associated with HIV DNA reservoir size in people living with HIV receiving antiretroviral therapy.** *The Journal of infectious diseases*  
Blazkova, J., Whitehead, E. J., Schneck, R., Shi, V., Justement, J. S., Rai, M. A., Kennedy, B. D., Manning, M. R., Praiss, L., Gittens, K., Wender, P. A., Oguz, C., Lack, et al  
2023
- **Charge-altering releasable transporters enhance mRNA delivery in vitro and exhibit in vivo tropism.** *Nature communications*  
Li, Z., Amaya, L., Pi, R., Wang, S. K., Ranjan, A., Waymouth, R. M., Blish, C. A., Chang, H. Y., Wender, P. A.  
2023; 14 (1): 6983

- **Conjugation of Vancomycin with a Single Arginine Improves Efficacy against Mycobacteria by More Effective Peptidoglycan Targeting.** *Journal of medicinal chemistry*  
Br#i#, J., Tong, A., Wender, P. A., Cegelski, L.  
2023
- **Detection of intact vancomycin-arginine as the active antibacterial conjugate in E. coli by whole-cell solid-state NMR.** *RSC medicinal chemistry*  
Werby, S. H., Br#i#, J., Chosy, M. B., Sun, J., Rendell, J. T., Neville, L. F., Wender, P. A., Cegelski, L.  
2023; 14 (6): 1192-1198
- **Detection of intact vancomycin-arginine as the active antibacterial conjugate in E. coli by whole-cell solid-state NMR** *RSC MEDICINAL CHEMISTRY*  
Werby, S. H., Brcic, J., Chosy, M. B., Sun, J., Rendell, J. T., Neville, L. F., Wender, P. A., Cegelski, L.  
2023
- **Circular RNA vaccine induces potent T cell responses.** *Proceedings of the National Academy of Sciences of the United States of America*  
Amaya, L., Grigoryan, L., Li, Z., Lee, A., Wender, P. A., Pulendran, B., Chang, H. Y.  
2023; 120 (20): e2302191120
- **Lysine-Derived Charge-Altering Releasable Transporters: Targeted Delivery of mRNA and siRNA to the Lungs.** *Bioconjugate chemistry*  
Blake, T. R., Haabeth, O. A., Sallets, A., McClellan, R. L., Del Castillo, T. J., Vilches-Moure, J. G., Ho, W. C., Wender, P. A., Levy, R., Waymouth, R. M.  
2023
- **Secreted factors induced by PKC modulators do not indirectly cause HIV latency reversal.** *Virology*  
Moran, J. A., Ranjan, A., Hourani, R., Kim, J. T., Wender, P. A., Zack, J. A., Marsden, M. D.  
2023; 581: 8-14
- **Comprehensive analysis of HIV reservoirs in elite controllers.** *The Journal of clinical investigation*  
Kennedy, B. D., Blazkova, J., Justement, J. S., Shi, V., Rai, M. A., Manning, M. R., Praiss, L., Gittens, K., Wender, P. A., Patro, S., Wu, X., Moir, S., Chun, et al  
2023; 133 (3)
- **Trimethylene Methane Dianion Equivalent for the Asymmetric Consecutive Allylation of Aldehydes: Applications to Prins-Driven Macrocyclizations for the Synthesis of Bryostatin 1 and Analogues.** *The Journal of organic chemistry*  
Wender, P. A., Luu-Nguyen, Q. H., Sloane, J. L., Ranjan, A.  
2022
- **Practical synthesis of the therapeutic leads tigilanol tiglate and its analogues.** *Nature chemistry*  
Wender, P. A., Gentry, Z. O., Fanelli, D. J., Luu-Nguyen, Q. H., McAteer, O. D., Njoo, E.  
2022
- **Author Correction: Engineering circular RNA for enhanced protein production.** *Nature biotechnology*  
Chen, R., Wang, S. K., Belk, J. A., Amaya, L., Li, Z., Cardenas, A., Abe, B. T., Chen, C., Wender, P. A., Chang, H. Y.  
2022
- **Engineering circular RNA for enhanced protein production.** *Nature biotechnology*  
Chen, R., Wang, S. K., Belk, J. A., Amaya, L., Li, Z., Cardenas, A., Abe, B. T., Chen, C., Wender, P. A., Chang, H. Y.  
2022
- **Fingolimod-Conjugated Charge-Altering Releasable Transporters Efficiently and Specifically Deliver mRNA to Lymphocytes In Vivo and In Vitro.** *Biomacromolecules*  
Testa, S., Haabeth, O. A., Blake, T. R., Del Castillo, T. J., Czerwinski, D. K., Rajapaksa, R., Wender, P. A., Waymouth, R. M., Levy, R.  
2022
- **Latency reversal plus natural killer cells diminish HIV reservoir in vivo.** *Nature communications*  
Kim, J. T., Zhang, T., Carmona, C., Lee, B., Seet, C. S., Kostelny, M., Shah, N., Chen, H., Farrell, K., Soliman, M. S., Dimapasoc, M., Sinani, M., Blanco, et al  
1800; 13 (1): 121
- **An mRNA SARS-CoV-2 Vaccine Employing Charge-Altering Releasable Transporters with a TLR-9 Agonist Induces Neutralizing Antibodies and T Cell Memory.** *ACS central science*  
Haabeth, O. A., Lohmeyer, J. J., Sallets, A., Blake, T. R., Sagiv-Barfi, I., Czerwinski, D. K., McCarthy, B., Powell, A. E., Wender, P. A., Waymouth, R. M., Levy, R.  
2021; 7 (7): 1191-1204

- **Designed PKC-targeting bryostatin analogs modulate innate immunity and neuroinflammation.** *Cell chemical biology*  
Abramson, E. n., Hardman, C. n., Shimizu, A. J., Hwang, S. n., Hester, L. D., Snyder, S. H., Wender, P. A., Kim, P. M., Kornberg, M. D.  
2021
- **In vivo targeting of E. coli with vancomycin-arginine.** *Antimicrobial agents and chemotherapy*  
Neville, L. F., Shalit, I. n., Warn, P. A., Scheetz, M. H., Sun, J. n., Chosy, M. B., Wender, P. A., Cegelski, L. n., Rendell, J. T.  
2021
- **Tracking HIV Rebound following Latency Reversal Using Barcoded HIV.** *Cell reports. Medicine*  
Marsden, M. D., Zhang, T., Du, Y., Dimapasoc, M., Soliman, M. S., Wu, X., Kim, J. T., Shimizu, A., Schrier, A., Wender, P. A., Sun, R., Zack, J. A.  
2020; 1 (9): 100162
- **Function-Oriented Synthesis: Design, Synthesis, and Evaluation of Highly Simplified Bryostatin Analogues.** *The Journal of organic chemistry*  
Wender, P. A., Sloane, J. L., Luu-Nguyen, Q. H., Ogawa, Y., Shimizu, A. J., Ryckbosch, S. M., Tyler, J. H., Hardman, C.  
2020
- **In Situ Detection of Endogenous HIV Activation by Dynamic Nuclear Polarization NMR and Flow Cytometry.** *International journal of molecular sciences*  
Overall, S. A., Price, L. E., Albert, B. J., Gao, C., Alaniva, N., Judge, P. T., Sesti, E. L., Wender, P. A., Kyei, G. B., Barnes, A. B.  
2020; 21 (13)
- **Prodrugs of PKC modulators show enhanced HIV latency reversal and an expanded therapeutic window.** *Proceedings of the National Academy of Sciences of the United States of America*  
Sloane, J. L., Benner, N. L., Keenan, K. N., Zang, X., Soliman, M. S., Wu, X., Dimapasoc, M., Chun, T., Marsden, M. D., Zack, J. A., Wender, P. A.  
2020
- **Synthesis and evaluation of designed PKC modulators for enhanced cancer immunotherapy.** *Nature communications*  
Hardman, C., Ho, S., Shimizu, A., Luu-Nguyen, Q., Sloane, J. L., Soliman, M. S., Marsden, M. D., Zack, J. A., Wender, P. A.  
2020; 11 (1): 1879
- **Synthesis and mechanistic investigations of pH-responsive cationic poly(aminoester)s** *CHEMICAL SCIENCE*  
Blake, T. R., Ho, W. C., Turlington, C. R., Zang, X., Huttner, M. A., Wender, P. A., Waymouth, R. M.  
2020; 11 (11): 2951–66
- **Clinical Correlates of Human Immunodeficiency Virus-1 (HIV-1) DNA and Inducible HIV-1 RNA Reservoirs in Peripheral Blood in Children With Perinatally Acquired HIV-1 Infection With Sustained Virologic Suppression for at Least 5 Years** *CLINICAL INFECTIOUS DISEASES*  
Bitnun, A., Ransy, D. G., Brophy, J., Kakkar, F., Hawkes, M., Samson, L., Annabi, B., Pagliuzza, A., Morand, J., Sauve, L., Chomont, N., Lavoie, S., Kim, et al  
2020; 70 (5): 859–66
- **Synthesis and mechanistic investigations of pH-responsive cationic poly(aminoester)s.** *Chemical science*  
Blake, T. R., Ho, W. C., Turlington, C. R., Zang, X., Huttner, M. A., Wender, P. A., Waymouth, R. M.  
2020; 11 (11): 2951-2966
- **Reversible RNA acylation for control of CRISPR-Cas9 gene editing** *CHEMICAL SCIENCE*  
Habibian, M., McKinlay, C., Blake, T. R., Kietrys, A. M., Waymouth, R. M., Wender, P. A., Kool, E. T.  
2020; 11 (4): 1011–16
- **Charge-altering releasable transporters enable phenotypic manipulation of natural killer cells for cancer immunotherapy.** *Blood advances*  
Wilk, A. J., Weidenbacher, N. L., Vergara, R. n., Haabeth, O. A., Levy, R. n., Waymouth, R. M., Wender, P. A., Blish, C. A.  
2020; 4 (17): 4244–55
- **Bryostatin 1 Promotes Synaptogenesis and Reduces Dendritic Spine Density in Cortical Cultures through a PKC-Dependent Mechanism.** *ACS chemical neuroscience*  
Ly, C. n., Shimizu, A. J., Vargas, M. V., Duim, W. C., Wender, P. A., Olson, D. E.  
2020
- **Reversible RNA acylation for control of CRISPR-Cas9 gene editing.** *Chemical science*  
Habibian, M., McKinlay, C., Blake, T. R., Kietrys, A. M., Waymouth, R. M., Wender, P. A., Kool, E. T.  
2019; 11 (4): 1011-1016
- **Synthesis of Modified Nucleoside Oligophosphates Simplified: Fast, Pure, and Protecting Group Free.** *Journal of the American Chemical Society*

Singh, J., Ripp, A., Haas, T. M., Qiu, D., Keller, M., Wender, P. A., Siegel, J. S., Baldrige, K. K., Jessen, H. J.  
2019

- **Impact of Treatment Interruption on HIV Reservoirs and Lymphocyte Subsets in Individuals Who Initiated Antiretroviral Therapy During the Early Phase of Infection** *JOURNAL OF INFECTIOUS DISEASES*  
Huiting, E. D., Gittens, K., Justement, J., Shi, V., Blazkova, J., Benko, E., Kovacs, C., Wender, P. A., Moir, S., Sneller, M. C., Fauci, A. S., Chun, T.  
2019; 220 (2): 270–74
- **Oligo(serine ester) Charge-Altering Releasable Transporters: Organocatalytic Ring-Opening Polymerization and their Use for in Vitro and in Vivo mRNA Delivery** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Benner, N. L., McClellan, R. L., Turlington, C. R., Haabeth, O. W., Waymouth, R. M., Wender, P. A.  
2019; 141 (21): 8416–21
- **Local Delivery of Ox40L, Cd80, and Cd86 mRNA Kindles Global Anticancer Immunity** *CANCER RESEARCH*  
Haabeth, O., Blake, T. R., McKinlay, C. J., Tveita, A. A., Sallets, A., Waymouth, R. M., Wender, P. A., Levy, R.  
2019; 79 (7): 1624–34
- **Therapeutic function through synthesis-informed design: Approaches to HIV/AIDS eradication, Alzheimer's disease, and enhanced cancer immunotherapy**  
Wender, P.  
AMER CHEMICAL SOC.2019
- **Clinical correlates of HIV-1 DNA and inducible HIV-1 RNA reservoirs in peripheral blood in children with perinatally acquired HIV-1 infection with sustained virologic suppression for at least 5 years.** *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*  
Bitnun, A., Ransy, D. G., Brophy, J., Kakkar, F., Hawkes, M., Samson, L., Annabi, B., Pagliuzza, A., Morand, J., Sauve, L., Chomont, N., Lavoie, S., Kim, et al  
2019
- **A Phosphoramidite Analogue of Cyclotriphosphate Enables Iterative Polyphosphorylations** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Singh, J., Steck, N., De, D., Hofer, A., Ripp, A., Captain, I., Keller, M., Wender, P. A., Bhandari, R., Jessen, H. J.  
2019; 58 (12): 3928–3933
- **Impact of treatment interruption on HIV reservoirs and lymphocyte subsets in individuals who had initiated antiretroviral therapy during the early phase of infection.** *The Journal of infectious diseases*  
Huiting, E. D., Gittens, K., Justement, J. S., Shi, V., Blazkova, J., Benko, E., Kovacs, C., Wender, P. A., Moir, S., Sneller, M. C., Fauci, A. S., Chun, T.  
2019
- **Local delivery of OX40L, CD80, and CD86 mRNA kindles global anti-cancer immunity.** *Cancer research*  
Haabeth, O. A., Blake, T. R., McKinlay, C. J., Tveita, A. A., Sallets, A., Waymouth, R. M., Wender, P. A., Levy, R.  
2019
- **A Phosphoramidite Analogue of Cyclotriphosphate Enables Iterative Polyphosphorylations.** *Angewandte Chemie (International ed. in English)*  
Singh, J., Steck, N., De, D., Hofer, A., Ripp, A., Captain, I., Keller, M., Wender, P. A., Bhandari, R., Jessen, H. J.  
2019
- **Oligo(serine ester) Charge-Altering Releasable Transporters: Organocatalytic Ring-Opening Polymerization and their Use for in Vitro and in Vivo mRNA Delivery.** *Journal of the American Chemical Society*  
Benner, N. L., McClellan, R. L., Turlington, C. R., Haabeth, O. A., Waymouth, R. M., Wender, P. A.  
2019
- **Vancomycin-Arginine Conjugate Inhibits Growth of Carbapenem-Resistant E. coli and Targets Cell-Wall Synthesis.** *ACS chemical biology*  
Antonoplis, A. n., Zang, X. n., Wegner, T. n., Wender, P. A., Cegelski, L. n.  
2019
- **A Dual-Function Antibiotic-Transporter Conjugate Exhibits Superior Activity in Sterilizing MRSA Biofilms and Killing Persister Cells** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Antonoplis, A., Zang, X., Huttner, M. A., Chong, K. L., Lee, Y. B., Co, J. Y., Amieva, M. R., Kline, K. A., Wender, P. A., Cegelski, L.  
2018; 140 (47): 16140–16151
- **Delivery of Inorganic Polyphosphate into Cells Using Amphipathic Oligocarbonate Transporters.** *ACS central science*  
Fernandes-Cunha, G. M., McKinlay, C. J., Vargas, J. R., Jessen, H. J., Waymouth, R. M., Wender, P. A.  
2018; 4 (10): 1394–1402

- **mRNA vaccination with charge-altering releasable transporters elicits human T cell responses and cures established tumors in mice** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Haabeth, O. W., Blake, T. R., McKinlay, C. J., Waymouth, R. M., Wender, P. A., Levy, R.  
2018; 115 (39): E9153–E9161
- **mRNA vaccination with charge-altering releasable transporters elicits human T cell responses and cures established tumors in mice.** *Proceedings of the National Academy of Sciences of the United States of America*  
Haabeth, O. A., Blake, T. R., McKinlay, C. J., Waymouth, R. M., Wender, P. A., Levy, R.  
2018
- **Functional DNA Delivery Enabled by Lipid-Modified Charge-Altering Releasable Transporters (CARTs)** *BIOMACROMOLECULES*  
Benner, N. L., Near, K. E., Bachmann, M. H., Contag, C. H., Waymouth, R. M., Wender, P. A.  
2018; 19 (7): 2812–24
- **Characterization of designed, synthetically accessible bryostatin analog HIV latency reversing agents** *VIROLOGY*  
Marsden, M. D., Wu, X., Navab, S. M., Loy, B. A., Schrier, A. J., DeChristopher, B. A., Shimizu, A. J., Hardman, C. T., Ho, S., Ramirez, C. M., Wender, P. A., Zack, J. A.  
2018; 520: 83–93
- **Enhanced mRNA delivery into lymphocytes enabled by lipid-varied libraries of charge-altering releasable transporters.** *Proceedings of the National Academy of Sciences of the United States of America*  
McKinlay, C. J., Benner, N. L., Haabeth, O. A., Waymouth, R. M., Wender, P. A.  
2018; 115 (26): E5859–E5866
- **Enhanced mRNA delivery into lymphocytes enabled by lipid-varied libraries of charge-altering releasable transporters** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
McKinlay, C. J., Benner, N. L., Haabeth, O. A., Waymouth, R. M., Wender, P. A.  
2018; 115 (26): E5859–E5866
- **REDOR NMR Reveals Multiple Conformers for a Protein Kinase C Ligand in a Membrane Environment** *ACS CENTRAL SCIENCE*  
Yang, H., Staveness, D., Ryckbosch, S. M., Axtman, A. D., Loy, B. A., Barnes, A. B., Pande, V. S., Schaefer, J., Wender, P. A., Cegelski, L.  
2018; 4 (1): 89–96
- **Delivery of Inorganic Polyphosphate into Cells Using Amphipathic Oligocarbonate Transporters** *ACS Cent. Sci.*  
Fernandes Cunha, G., McKinlay, C., Vargas, J., Jessen, H., Waymouth, R., Wender, P.  
2018
- **Enantioselective Cobalt-catalysed Transformations Foreword** *ENANTIOSELECTIVE COBALT-CATALYSED TRANSFORMATIONS*  
Wender, P. A., Pellissier, H.  
2018; 35: VII–VIII
- **A dual function antibiotic-transporter conjugate exhibits superior activity in sterilizing MRSA biofilms and killing persister cells.** *Journal of the American Chemical Society*  
Antonoplis, A. n., Zang, X. n., Huttner, M. A., Chong, K. n., Lee, Y. B., Co, J. Y., Amieva, M. n., Kline, K. n., Wender, P. A., Cegelski, L. n.  
2018
- **Molecular dynamics simulations reveal ligand-controlled positioning of a peripheral protein complex in membranes.** *Nature communications*  
Ryckbosch, S. M., Wender, P. A., Pande, V. S.  
2017; 8 (1): 6–?
- **Gilbert Stork (1921-2017) Chemist who revolutionized molecular synthesis** *NATURE*  
Wender, P. A.  
2017; 551 (7682): 566
- **Ynol Ethers as Ketene Equivalents in Rhodium-Catalyzed Intermolecular [5+2] Cycloaddition Reactions** *ORGANIC LETTERS*  
Wender, P. A., Ebner, C., Fennell, B. D., Inagaki, F., Schroeder, B.  
2017; 19 (21): 5810–13
- **Retrosynthetic Reaction Prediction Using Neural Sequence-to-Sequence Models** *ACS CENTRAL SCIENCE*  
Liu, B., Ramsundar, B., Kawthekar, P., Shi, J., Gomes, J., Quang Luu Nguyen, Ho, S., Sloane, J., Wender, P., Pande, V.

2017; 3 (10): 1103–13

- **Scalable synthesis of bryostatin 1 and analogs, adjuvant leads against latent HIV** *SCIENCE*  
Wender, P. A., Hardman, C. T., Ho, S., Jeffreys, M. S., Maclaren, J. K., Quiroz, R. V., Ryckbosch, S. M., Shimizu, A. J., Sloane, J. L., Stevens, M. C.  
2017; 358 (6360): 218–22
- **Bryostatin and its synthetic analog, picolog rescue dermal fibroblasts from prolonged stress and contribute to survival and rejuvenation of human skin equivalents.** *Journal of cellular physiology*  
Khan, T. K., Wender, P. A., Alkon, D. L.  
2017
- **Charge-Altering Releasable Transporters (CARTs) for the delivery and release of messenger RNA in living animals**  
McKinlay, C., Vargas, J., Blake, T., Hardy, J., Masamitsu, K., Contag, C., Wender, P., Waymouth, R.  
AMER CHEMICAL SOC.2017
- **Charge-altering releasable transporters (CARTs) for the delivery and release of mRNA in living animals** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
McKinlay, C. J., Vargas, J. R., Blake, T. R., Hardy, J. W., Kanada, M., Contag, C. H., Wender, P. A., Waymouth, R. M.  
2017; 114 (4): E448-E456
- **Vault Nanoparticles: Chemical Modifications for Imaging and Enhanced Delivery** *ACS NANO*  
Benner, N. L., Zang, X., Buehler, D. C., Kickhoefer, V. A., Rome, M. E., Rome, L. H., Wender, P. A.  
2017; 11 (1): 872-881
- **Combinations of isoform-targeted histone deacetylase inhibitors and bryostatin analogues display remarkable potency to activate latent HIV without global T-cell activation.** *Scientific reports*  
Albert, B. J., Niu, A. n., Ramani, R. n., Marshall, G. R., Wender, P. A., Williams, R. M., Ratner, L. n., Barnes, A. B., Kyei, G. B.  
2017; 7 (1): 7456
- **In vivo activation of latent HIV with a synthetic bryostatin analog effects both latent cell "kick" and "kill" in strategy for virus eradication.** *PLoS pathogens*  
Marsden, M. D., Loy, B. A., Wu, X. n., Ramirez, C. M., Schrier, A. J., Murray, D. n., Shimizu, A. n., Ryckbosch, S. M., Near, K. E., Chun, T. W., Wender, P. A., Zack, J. A.  
2017; 13 (9): e1006575
- **Comparative analysis of the anti-chikungunya virus activity of novel bryostatin analogs confirms the existence of a PKC-independent mechanism.** *Biochemical pharmacology*  
Abdelnabi, R., Staveness, D., Near, K. E., Wender, P. A., Delang, L., Neyts, J., Leyssen, P.  
2016; 120: 15-21
- **Inhibition of Chikungunya Virus-Induced Cell Death by Salicylate-Derived Bryostatin Analogues Provides Additional Evidence for a PKC-Independent Pathway** *JOURNAL OF NATURAL PRODUCTS*  
Staveness, D., Abdelnabi, R., Near, K. E., Nakagawa, Y., Neyts, J., Delang, L., Leyssen, P., Wender, P. A.  
2016; 79 (4): 680-684
- **Simplified Bryostatin Analogues Protect Cells from Chikungunya Virus-Induced Cell Death** *JOURNAL OF NATURAL PRODUCTS*  
Staveness, D., Abdelnabi, R., Schrier, A. J., Loy, B. A., Verma, V. A., DeChristopher, B. A., Near, K. E., Neyts, J., Delang, L., Leyssen, P., Wender, P. A.  
2016; 79 (4): 675-679
- **Cell-Penetrating, Guanidinium-Rich Oligophosphoesters: Effective and Versatile Molecular Transporters for Drug and Probe Delivery.** *Journal of the American Chemical Society*  
McKinlay, C. J., Waymouth, R. M., Wender, P. A.  
2016; 138 (10): 3510-3517
- **Cell-Penetrating, Guanidinium-Rich Oligophosphoesters: Effective and Versatile Molecular Transporters for Drug and Probe Delivery** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
McKinlay, C. J., Waymouth, R. M., Wender, P. A.  
2016; 138 (10): 3510-3517
- **Bioorthogonal Catalysis: A General Method To Evaluate Metal Catalyzed Reactions in Real Time in Living Systems Using a Cellular Luciferase Reporter System** *BIOCONJUGATE CHEMISTRY*  
Hsu, H., Trantow, B. M., Waymouth, R. M., Wender, P. A.

2016; 27 (2): 376-382

- **Cellular delivery and photochemical release of a caged inositol-pyrophosphate induces PH-domain translocation in cellulose.** *Nature communications*  
Pavlovic, I., Thakor, D. T., Vargas, J. R., McKinlay, C. J., Hauke, S., Anstaett, P., Camuña, R. C., Bigler, L., Gasser, G., Schultz, C., Wender, P. A., Jessen, H. J.  
2016; 7: 10622-?
- **Award Address (Arthur C. Cope Award sponsored by the Arthur C. Cope Fund). Chemistry-medicine continuum: Computer-guided, synthesis-informed design of new therapeutic leads for HIV/AIDS eradication, Alzheimer's disease, and cancer**  
Wender, P.  
AMER CHEMICAL SOC.2015
- **Design, synthesis, and evaluation of novel guanidinium-rich, glycerol-derived oligocarboxylates for the complexation, delivery, and release of siRNA**  
Huttner, M., Wender, P.  
AMER CHEMICAL SOC.2015
- **Tetramethyleneethane Equivalents: Recursive Reagents for Serialized Cycloadditions** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Jeffreys, M. S., Raub, A. G.  
2015; 137 (28): 9088-9093
- **Tetramethyleneethane Equivalents: Recursive Reagents for Serialized Cycloadditions.** *Journal of the American Chemical Society*  
Wender, P. A., Jeffreys, M. S., Raub, A. G.  
2015; 137 (28): 9088-93
- **Studies on the regio- and diastereo-selective epoxidation of daphnanes and tiglanes** *TETRAHEDRON LETTERS*  
Boudreault, P., Mattler, J. K., Wender, P. A.  
2015; 56 (23): 3423-3427
- **Studies on the regio- and diastereo-selective epoxidation of daphnanes and tiglanes.** *Tetrahedron letters*  
Boudreault, P. L., Mattler, J. K., Wender, P. A.  
2015; 56 (23): 3423-3427
- **Toward a Biorelevant Structure of Protein Kinase C Bound Modulators: Design, Synthesis, and Evaluation of Labeled Bryostatin Analogues for Analysis with Rotational Echo Double Resonance NMR Spectroscopy** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Loy, B. A., Lesser, A. B., Staveness, D., Billingsley, K. L., Cegelski, L., Wender, P. A.  
2015; 137 (10): 3678-3685
- **Catalytic Efficiency Is a Function of How Rhodium(I) (5 + 2) Catalysts Accommodate a Conserved Substrate Transition State Geometry: Induced Fit Model for Explaining Transition Metal Catalysis.** *ACS catalysis*  
Mustard, T. J., Wender, P. A., Cheong, P. H.  
2015; 5 (3): 1758-1763
- **Guanidinium-Rich, Glycerol-Derived Oligocarboxylates: A New Class of Cell-Penetrating Molecular Transporters That Complex, Deliver, and Release siRNA.** *Molecular pharmaceutics*  
Wender, P. A., Huttner, M. A., Staveness, D., Vargas, J. R., Xu, A. F.  
2015; 12 (3): 742-750
- **Function through Synthesis-Informed Design** *ACCOUNTS OF CHEMICAL RESEARCH*  
Wender, P. A., Quiroz, R. V., Stevens, M. C.  
2015; 48 (3): 752-760
- **Catalytic Efficiency Is a Function of How Rhodium(I) (5+2) Catalysts Accommodate a Conserved Substrate Transition State Geometry: Induced Fit Model for Explaining Transition Metal Catalysis** *ACS CATALYSIS*  
Mustard, T. J., Wender, P. A., Cheong, P. H.  
2015; 5 (3): 1758-1763
- **Art, architecture, and the molecular frontier.** *Accounts of chemical research*  
Wender, P. A.  
2015; 48 (8): 2169-70
- **Function through bio-inspired, synthesis-informed design: step-economical syntheses of designed kinase inhibitors†Dedicated to Max Malacria, a friend and scholar whose science and creative contributions to step-economical synthesis have inspired us all and moved the field closer to the ideal.‡Electronic**

- supplementary information (ESI) available: Synthetic procedures and spectral data. See DOI: 10.1039/c4qo00228h Click here for additional data file. *Organic chemistry frontiers : an international journal of organic chemistry*  
Wender, P. A., Axtman, A. D., Golden, J. E., Kee, J., Sirois, L. E., Quiroz, R. V., Stevens, M. C.  
2014; 1 (10): 1166-1171
- **Reactivity and Chemoselectivity of Allenes in Rh(I)-Catalyzed Intermolecular (5+2) Cycloadditions with Vinylcyclopropanes: Allene-Mediated Rhodacycle Formation Can Poison Rh(I)-Catalyzed Cycloadditions** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Hong, X., Stevens, M. C., Liu, P., Wender, P. A., Houk, K. N.  
2014; 136 (49): 17273-17283
  - **Computer-Guided Design, Synthesis, and Protein Kinase C Affinity of a New. Salicylate-Based Class of Bryostatin Analogs** *ORGANIC LETTERS*  
Wender, P. A., Nakagawa, Y., Near, K. E., Staveness, D.  
2014; 16 (19): 5136-5139
  - **Computer-guided design, synthesis, and protein kinase C affinity of a new salicylate-based class of bryostatin analogs.** *Organic letters*  
Wender, P. A., Nakagawa, Y., Near, K. E., Staveness, D.  
2014; 16 (19): 5136-5139
  - **Improved protein kinase C affinity through final step diversification of a simplified salicylate-derived bryostatin analog scaffold.** *Organic letters*  
Wender, P. A., Staveness, D.  
2014; 16 (19): 5140-5143
  - **Improved Protein Kinase C Affinity through Final Step Diversification of a Simplified Salicylate-Derived Bryostatin Analog Scaffold** *ORGANIC LETTERS*  
Wender, P. A., Staveness, D.  
2014; 16 (19): 5140-5143
  - **Toward HIV eradication strategies: Designed, synthetically accessible bryostatin and prostratin analogs potently induce activation of latent HIV reservoirs in vitro and ex vivo**  
Marsden, M. D., Loy, B. A., DeChristopher, B. A., Beans, E. J., Heumann, L. V., Fournogerakis, D., Schrier, A. J., Chun, T., Zack, J. A., Wender, P. A.  
AMER CHEMICAL SOC.2014
  - **Cell-penetrating, guanidinium-rich molecular transporters for overcoming efflux-mediated multidrug resistance.** *Molecular pharmaceutics*  
Vargas, J. R., Stanzl, E. G., Teng, N. N., Wender, P. A.  
2014; 11 (8): 2553-2565
  - **Bioengineered Vaults: Self-Assembling Protein Shell-Lipophilic Core Nanoparticles for Drug Delivery** *ACS NANO*  
Buehler, D. C., Marsden, M. D., Shen, S., Toso, D. B., Wu, X., Loo, J. A., Zhou, Z. H., Kickhoefer, V. A., Wender, P. A., Zack, J. A., Rome, L. H.  
2014; 8 (8): 7723-7732
  - **Propargyltrimethylsilanes as allene equivalents in transition metal-catalyzed [5 + 2] cycloadditions.** *Organic letters*  
Wender, P. A., Inagaki, F., Pfaffenbach, M., Stevens, M. C.  
2014; 16 (11): 2923-2925
  - **Structural complexity through multicomponent cycloaddition cascades enabled by dual-purpose, reactivity regenerating 1,2,3-triene equivalents** *NATURE CHEMISTRY*  
Wender, P. A., Fournogerakis, D. N., Jeffreys, M. S., Quiroz, R. V., Inagaki, F., Pfaffenbach, M.  
2014; 6 (5): 448-452
  - **Toward the ideal synthesis and molecular function through synthesis-informed design** *NATURAL PRODUCT REPORTS*  
Wender, P. A.  
2014; 31 (4): 433-440
  - **Rethinking the Role of Natural Products: Function-Oriented Synthesis, Bryostatin, and Bryologs** *NATURAL PRODUCTS IN MEDICINAL CHEMISTRY*  
Wender, P. A., Donnelly, A. C., Loy, B. A., Near, K. E., Staveness, D., Hanessian, S.  
2014; 60: 475-543
  - **Function through bio-inspired, synthesis-informed design: step-economical syntheses of designed kinase inhibitors** *ORGANIC CHEMISTRY FRONTIERS*  
Wender, P. A., Axtman, A. D., Golden, J. E., Kee, J., Sirois, L. E., Quiroz, R. V., Stevens, M. C.  
2014; 1 (10): 1166-1171

- **Fifteen Years of Cell-Penetrating Guanidinium-Rich Molecular Transporters: Basic Science, Research Tools, and Clinical Applications** *ACCOUNTS OF CHEMICAL RESEARCH*  
Stanzl, E. G., Trantow, B. M., Vargas, J. R., Wender, P. A.  
2013; 46 (12): 2944-2954
- **Toward the ideal synthesis and transformative therapies: the roles of step economy and function oriented synthesis** *TETRAHEDRON*  
Wender, P. A.  
2013; 69 (36): 7529-7550
- **Toward the ideal synthesis and function through synthesis informed design: Approaches to AIDS eradication, treating Alzheimer's disease, and overcoming resistant cancer**  
Wender, P. A.  
AMER CHEMICAL SOC.2013
- **Multiscale modeling of drug delivery nanosystems: Liposomes and cross linked nanospheres**  
Espinosa-Duran, J. M., Joshi, H., Wender, P. A., Ortoleva, P. J.  
AMER CHEMICAL SOC.2013
- **Highly potent, synthetically accessible prostratin analogs induce latent HIV expression in vitro and ex vivo** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Beans, E. J., Fournogerakis, D., Gauntlett, C., Heumann, L. V., Kramer, R., Marsden, M. D., Murray, D., Chun, T., Zack, J. A., Wender, P. A.  
2013; 110 (29): 11698-11703
- **Lead Diversification through a Prins-Driven Macrocyclization Strategy: Application to C13-Diversified Bryostatin Analogues** *SYNTHESIS-STUTTGART*  
Wender, P. A., Billingsley, K. L.  
2013; 45 (13): 1815-1824
- **Toward the Ideal Synthesis and Transformative Therapies: The Roles of Step Economy and Function Oriented Synthesis.** *Tetrahedron*  
Wender, P. A.  
2013; 69 (36): 7529-7550
- **Mechanistic and Computational Studies of Exocyclic Stereocontrol in the Synthesis of Bryostatin-like Cis-2,6-Disubstituted 4-Alkylidenetetrahydropyrans by Prins Cyclization** *JOURNAL OF ORGANIC CHEMISTRY*  
Ogawa, Y., Painter, P. P., Tantillo, D. J., Wender, P. A.  
2013; 78 (1): 104-115
- **Lead Diversification through a Prins-Driven Macrocyclization Strategy: Application to C13-Diversified Bryostatin Analogues.** *Synthesis*  
Wender, P. A., Billingsley, K. L.  
2013; 45 (13): 1815-1824
- **Designed, synthetically accessible bryostatin analogues potently induce activation of latent HIV reservoirs in vitro** *NATURE CHEMISTRY*  
DeChristopher, B. A., Loy, B. A., Marsden, M. D., Schrier, A. J., Zack, J. A., Wender, P. A.  
2012; 4 (9): 705-710
- **Effect of Histone Deacetylase Inhibitors on HIV Production in Latently Infected, Resting CD4(+) T Cells From Infected Individuals Receiving Effective Antiretroviral Therapy** *JOURNAL OF INFECTIOUS DISEASES*  
Blazkova, J., Chun, T., Belay, B. W., Murray, D., Justement, J. S., Funk, E. K., Nelson, A., Hallahan, C. W., Moir, S., Wender, P. A., Fauci, A. S.  
2012; 206 (5): 765-769
- **Designed guanidinium-rich amphipathic oligocarbonate molecular transporters complex, deliver and release siRNA in cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Geihe, E. I., Cooley, C. B., Simon, J. R., Kiesewetter, M. K., Edward, J. A., Hickerson, R. P., Kaspar, R. L., Hedrick, J. L., Waymouth, R. M., Wender, P. A.  
2012; 109 (33): 13171-13176
- **A molecular method for the delivery of small molecules and proteins across the cell wall of algae using molecular transporters** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Hyman, J. M., Geihe, E. I., Trantow, B. M., Parvin, B., Wender, P. A.  
2012; 109 (33): 13225-13230
- **Bryostatin analogue-induced apoptosis in mantle cell lymphoma cell lines** *EXPERIMENTAL HEMATOLOGY*  
Lopez-Campistrous, A., Song, X., Schrier, A. J., Wender, P. A., Dower, N. A., Stone, J. C.

2012; 40 (8): 646-656

- **Ligand Effects on Rates and Regioselectivities of Rh(I)-Catalyzed (5+2) Cycloadditions: A Computational Study of Cyclooctadiene and Dinaphthocyclooctatetraene as Ligands** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Xu, X., Liu, P., Lesser, A., Sirois, L. E., Wender, P. A., Houk, K. N.  
2012; 134 (26): 11012-11025
- **Taxol-oligoarginine conjugates overcome drug resistance in-vitro in human ovarian carcinoma** *GYNECOLOGIC ONCOLOGY*  
Wender, P. A., Galliher, W. C., Bhat, N. M., Pillow, T. H., Bieber, M. M., Teng, N. N.  
2012; 126 (1): 118-123
- **siRNA complexation, delivery, and release by new biodegradable molecular transporters**  
Geihe, E. I., Cooley, C. B., Simon, J., Kieseewetter, M. K., Edward, J., Hickerson, R. P., Kaspar, R. L., Hedrick, J. L., Waymouth, R. M., Wender, P. A.  
AMER CHEMICAL SOC.2012
- **Beyond Cell Penetrating Peptides: Designed Molecular Transporters.** *Drug discovery today. Technologies*  
Wender, P. A., Cooley, C. B., Geihe, E. I.  
2012; 9 (1): e49-e55
- **Rhodium Dinaphthocyclooctatetraene Complexes: Synthesis, Characterization and Catalytic Activity in [5+2] Cycloadditions** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Wender, P. A., Lesser, A. B., Sirois, L. E.  
2012; 51 (11): 2736-2740
- **Strategies and Tactics in Organic Synthesis Volume 8 Foreword** *STRATEGIES AND TACTICS IN ORGANIC SYNTHESIS, VOL 8*  
Wender, P. A., Harmata, M.  
2012; 8: XV-XVI
- **Beyond cell penetrating peptides: designed molecular transporters.** *Drug discovery today. Technologies*  
[Anonymous]  
2012; 9 (1): e1-e70
- **"Picolog," a Synthetically-Available Bryostatin Analog, Inhibits Growth of MYC-Induced Lymphoma In Vivo** *ONCOTARGET*  
DeChristopher, B. A., Fan, A. C., Felsher, D. W., Wender, P. A.  
2012; 3 (1): 58-66
- **Function oriented synthesis: preparation and initial biological evaluation of new A-ring-modified bryologs** *TETRAHEDRON*  
Wender, P. A., Reuber, J.  
2011; 67 (51): 9998-10005
- **Function Oriented Synthesis: Preparation and Initial Biological Evaluation of New A-Ring-Modified Bryologs.** *Tetrahedron*  
Wender, P. A., Reuber, J.  
2011; 67 (51): 9998-10005
- **Gateway synthesis of daphnane congeners and their protein kinase C affinities and cell-growth activities** *NATURE CHEMISTRY*  
Wender, P. A., Buschmann, N., Cardin, N. B., Jones, L. R., Kan, C., Kee, J., Kowalski, J. A., Longcore, K. E.  
2011; 3 (8): 615-619
- **To Eun Lee on His 65th Birthday** *CHEMISTRY-AN ASIAN JOURNAL*  
Wender, P.  
2011; 6 (8): 1899-1901
- **Total Synthesis of Bryostatin 9** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Schrier, A. J.  
2011; 133 (24): 9228-9231
- **Design, synthesis, and evaluation of potent bryostatin analogs that modulate PKC translocation selectivity** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Wender, P. A., Baryza, J. L., Brenner, S. E., DeChristopher, B. A., Loy, B. A., Schrier, A. J., Verma, V. A.  
2011; 108 (17): 6721-6726

- **Translating Nature's Library: The Bryostatins and Function-Oriented Synthesis** *ISRAEL JOURNAL OF CHEMISTRY*  
Wender, P. A., Loy, B. A., Schrier, A. J.  
2011; 51 (3-4): 453-472
- **Translating Nature's Library: The Bryostatins and Function-Oriented Synthesis.** *Israel journal of chemistry*  
Wender, P. A., Loy, B. A., Schrier, A. J.  
2011; 51 (3-4): 453-472
- **What lies ahead** *NATURE*  
Wender, P., Cummins, C. C., Poliakoff, M., Kiessling, L., Meijer, E., Alivisatos, P., Wooley, K., King, D., Aizenberg, J., Fleming, G.  
2011; 469 (7328): 23-25
- **THE PREPARATION OF CYCLOHEPT-4-ENONES BY RHODIUM-CATALYZED INTERMOLECULAR [5+2] CYCLOADDITION** *ORGANIC SYNTHESSES*  
Wender, P. A., Lesser, A. B., Sirois, L. E.  
2011; 88: 109-+
- **Electronic and Steric Control of Regioselectivities in Rh(I)-Catalyzed (5+2) Cycloadditions: Experiment and Theory** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Liu, P., Sirois, L. E., Cheong, P. H., Yu, Z., Hartung, I. V., Rieck, H., Wender, P. A., Houk, K. N.  
2010; 132 (29): 10127-10135
- **Highly Efficient, Facile, Room Temperature Intermolecular [5+2] Cycloadditions Catalyzed by Cationic Rhodium(I): One Step to Cycloheptenes and Their Libraries** *ORGANIC LETTERS*  
Wender, P. A., Sirois, L. E., Stemmler, R. T., Williams, T. J.  
2010; 12 (7): 1604-1607
- **Special delivery: One-step oligomerization of oligocarbonate molecular transporters and biological evaluation of uptake and delivery**  
Cooley, C. B., Trantow, B. M., Kiesewetter, M. K., Nederberg, F., Hedrick, J. L., Waymouth, R. M., Wender, P. A.  
AMER CHEMICAL SOC.2010
- **Metal-catalyzed [5+2] cycloadditions: Experimental and theoretical studies on regioselectivity and a new highly efficient catalyst**  
Sirois, L. E., Liu, P., Stemmler, R. T., Houk, K. N., Wender, P. A.  
AMER CHEMICAL SOC.2010
- **A Metal-Catalyzed Intermolecular [5+2] Cycloaddition/Nazarov Cyclization Sequence and Cascade** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Stemmler, R. T., Sirois, L. E.  
2010; 132 (8): 2532-?
- **The Diene Effect: The Design, Development, and Mechanistic Investigation of Metal-Catalyzed Diene-yne, Diene-ene, and Diene-allene [2+2+1] Cycloaddition Reactions** *EUROPEAN JOURNAL OF ORGANIC CHEMISTRY*  
Croatt, M. P., Wender, P. A.  
2010; 19-32
- **Apoptolidins E and F, New Glycosylated Macrolactones Isolated from Nocardiosis sp.** *ORGANIC LETTERS*  
Wender, P. A., Longcore, K. E.  
2009; 11 (23): 5474-5477
- **Oligocarbonate Molecular Transporters: Oligomerization-Based Syntheses and Cell-Penetrating Studies** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Cooley, C. B., Trantow, B. M., Nederberg, F., Kiesewetter, M. K., Hedrick, J. L., Waymouth, R. M., Wender, P. A.  
2009; 131 (45): 16401-?
- **Prolonging microtubule disruption enhances the immunogenicity of chronic lymphocytic leukaemia cells** *CLINICAL AND EXPERIMENTAL IMMUNOLOGY*  
Shaha, S. P., Tomic, J., Shi, Y., Pham, T., Mero, P., White, D., He, L., Baryza, J. L., Wender, P. A., Booth, J. W., Spaner, D. E.  
2009; 158 (2): 186-198
- **Rhodium(I)-Catalyzed [2+2], [2+2+2], and [2+2+2+2] Cycloadditions of Dienes or Alkynes with a Bis-ene** *ORGANOMETALLICS*  
Wender, P. A., Croatt, M. P., Kuehn, B.

2009; 28 (20): 5841-5844

- **An Approach to the Site-Selective Diversification of Apoptolidin A with Peptide-Based Catalysts** *JOURNAL OF NATURAL PRODUCTS*  
Lewis, C. A., Longcore, K. E., Miller, S. J., Wender, P. A.  
2009; 72 (10): 1864-1869
- **Design and development of rhodium(I)-catalyzed cycloadditions and synthesis of designed Amphotericin B analogs**  
Croatt, M. P., Wender, P. A., Carreira, E. M.  
AMER CHEMICAL SOC.2009: 57
- **Synthesis at the molecular frontier** *NATURE*  
Wender, P. A., Miller, B. L.  
2009; 460 (7252): 197-201
- **Cyclocarboamination of Alkynes with Aziridines: Synthesis of 2,3-Dihydropyrroles by a Catalyzed Formal [3+2] Cycloaddition** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Strand, D.  
2009; 131 (22): 7528-?
- **A cellular model of Alzheimer's disease therapeutic efficacy: PKC activation reverses A beta-induced biomarker abnormality on cultured fibroblasts** *NEUROBIOLOGY OF DISEASE*  
Khan, T. K., Nelson, T. J., Verma, V. A., Wender, P. A., Alkon, D. L.  
2009; 34 (2): 332-339
- **The Synthesis of Highly Substituted Cyclooctatetraene Scaffolds by Metal-Catalyzed [2+2+2+2] Cycloadditions: Studies on Regioselectivity, Dynamic Properties, and Metal Chelation** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Wender, P. A., Christy, J. P., Lesser, A. B., Gieseler, M. T.  
2009; 48 (41): 7687-7690
- **A proapoptotic signaling pathway involving RasGRP, Erk, and Bim in B cells** *EXPERIMENTAL HEMATOLOGY*  
Stang, S. L., Lopez-Campistrous, A., Song, X., Dower, N. A., Blumberg, P. M., Wender, P. A., Stone, J. C.  
2009; 37 (1): 122-134
- **Function-oriented synthesis: Biological evaluation of laulimalide analogues derived from a last step cross metathesis diversification strategy** *MOLECULAR PHARMACEUTICS*  
Mooberry, S. L., Hilinski, M. K., Clark, E. A., Wender, P. A.  
2008; 5 (5): 829-838
- **Overcoming multidrug resistance of small-molecule therapeutics through conjugation with releasable octaarginine transporters** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Dubikovskaya, E. A., Thorne, S. H., Pillow, T. H., Contag, C. H., Wender, P. A.  
2008; 105 (34): 12128-12133
- **The design, synthesis, and evaluation of C7 diversified bryostatin analogs reveals a hot spot for PKC affinity** *ORGANIC LETTERS*  
Wender, P. A., Verma, V. A.  
2008; 10 (15): 3331-3334
- **Single-molecule motions of oligoarginine transporter conjugates on the plasma membrane of Chinese hamster ovary cells** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Lee, H., Dubikovskaya, E. A., Hwang, H., Semyonov, A. N., Wang, H., Jones, L. R., TWIEG, R. J., Moerner, W. E., Wender, P. A.  
2008; 130 (29): 9364-9370
- **Efficient synthetic access to a new family of highly potent bryostatin analogues via a prins-driven macrocyclization strategy** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., DeChristopher, B. A., Schrier, A. J.  
2008; 130 (21): 6658-?
- **Practical synthesis of prostratin, DPP, and their analogs, adjuvant leads against latent HIV** *SCIENCE*  
Wender, P. A., Kee, J., Warrington, J. M.  
2008; 320 (5876): 649-652

- **ORGN 694-Theoretical studies on rhodium(I) catalyzed (5+2) cycloadditions** *235th American-Chemical-Society National Meeting*  
Liu, P., Cheong, P. H., Yu, Z., Legault, C. Y., Wender, P. A., Houk, K. N.  
AMER CHEMICAL SOC.2008
- **The design of guanidinium-rich transporters and their internalization mechanisms** *ADVANCED DRUG DELIVERY REVIEWS*  
Wender, P. A., Galliher, W. C., Goun, E. A., Jones, L. R., Pillow, T. H.  
2008; 60 (4-5): 452-472
- **Origins of differences in reactivities of alkenes, alkynes, and allenes in [Rh(CO)(2)Cl](2)-catalyzed (5+2) cycloaddition reactions with vinylcyclopropanes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Yu, Z., Cheong, P. H., Liu, P., Legault, C. Y., Wender, P. A., Houk, K. N.  
2008; 130 (8): 2378-2379
- **Function-oriented synthesis, step economy, and drug design** *ACCOUNTS OF CHEMICAL RESEARCH*  
Wender, P. A., Verma, V. A., Paxton, T. J., Pillow, T. H.  
2008; 41 (1): 40-49
- **Substituent effects, reactant preorganization, and ligand exchange control the reactivity in Rh-I-catalyzed (5+2) cycloadditions between vinylcyclopropanes and alkynes** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Liu, P., Cheong, P. H., Yu, Z., Wender, P. A., Houk, K. N.  
2008; 47 (21): 3939-3941
- **Nickel(0)-catalyzed [2+2+2+2] cycloadditions of terminal diynes for the synthesis of substituted cyclooctatetraenes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Christy, J. P.  
2007; 129 (44): 13402-?
- **N-Alkoxyimidazolylidene transition-metal complexes: Application to [5+2] and [4+2] cycloaddition reactions** *ORGANOMETALLICS*  
Gomez, F. J., Kamber, N. E., Deschamps, N. M., Cole, A. P., Wender, P. A., Waymouth, R. M.  
2007; 26 (18): 4541-4545
- **A computationally designed Rh(I)-catalyzed two-component [5+2+1] cycloaddition of ene-vinylcyclopropanes and CO for the synthesis of cyclooctenones** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wang, Y., Wang, J., Su, J., Huang, F., Jiao, L., Liang, Y., Yang, D., Zhang, S., Wender, P. A., Yu, Z.  
2007; 129 (33): 10060-?
- **MEDI 229-Mechanism of the translocation of guanidinium-rich peptides into cells**  
Rothbard, J., Wender, P. A., Jessop, T.  
AMER CHEMICAL SOC.2007
- **Real-time analysis of uptake and bioactivatable cleavage of luciferin-transporter conjugates in transgenic reporter mice** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Wender, P. A., Goun, E. A., Jones, L. R., Pillow, T. H., Rothbard, J. B., Shinde, R., Contag, C. H.  
2007; 104 (25): 10340-10345
- **Function-oriented synthesis: Studies aimed at the synthesis and mode of action of 1 alpha-alkyldaphnane analogues** *ORGANIC LETTERS*  
Wender, P. A., D'Angelo, N., Elitzin, V. I., Ernst, M., Jackson-Ugueto, E. E., Kowalski, J. A., McKendry, S., Rehfeuter, M., Sun, R., Voigtlaender, D.  
2007; 9 (9): 1829-1832
- **Nature as a teacher: New drug leads, drug delivery systems, and real time in vivo imaging methods**  
Wender, P. A.  
AMER CHEMICAL SOC.2007: 472
- **Isolation, structure determination, and anti-cancer activity of apoptolidin D** *ORGANIC LETTERS*  
Wender, P. A., Longcore, K. E.  
2007; 9 (4): 691-694
- **Cyclopentadienone synthesis by rhodium(I)-catalyzed [3+2] cycloaddition reactions of cyclopropanones and alkynes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Paxton, T. J., Williams, T. J.

2006; 128 (46): 14814-14815

- **Total synthesis and initial biological evaluation of new B-ring-modified bryostatin analogs** *ORGANIC LETTERS*  
Wender, P. A., Horan, J. C., Verma, V. A.  
2006; 8 (23): 5299-5302
- **Studies on oxidopyrylium [5+2] cycloadditions: Toward a general synthetic route to the C12-hydroxy daphnetoxins** *ORGANIC LETTERS*  
Wender, P. A., Bi, F. C., Buschmann, N., Gosselin, F., Kan, C., Kee, J., Ohmura, H.  
2006; 8 (23): 5373-5376
- **Molecular transporters: Synthesis of oligoguanidinium transporters and their application to drug delivery and real-time imaging** *CHEMBIOCHEM*  
Goun, E. A., Pillow, T. H., Jones, L. R., Rothbard, J. B., Wender, P. A.  
2006; 7 (10): 1497-1515
- **Synthesis and PKC binding of a new class of A-ring diversifiable bryostatin analogues utilizing a double asymmetric hydrogenation and cross-coupling strategy** *ORGANIC LETTERS*  
Wender, P. A., Horan, J. C.  
2006; 8 (20): 4581-4584
- **PHYS 496-Lateral movements of single poly(arginine) peptides on the CHO plasma membrane before cellular entry**  
Hwang, H., Kim, S. Y., Goun, E., Jones, L. R., Wender, P. A., Semyonov, A. N., Twieg, R. J., Moerner, W. E.  
AMER CHEMICAL SOC.2006
- **MEDI 279-Releasable luciferin-transporter conjugates: Tools for the real time analysis of uptake and release**  
Jones, L. R., Wender, P. A.  
AMER CHEMICAL SOC.2006
- **MEDI 87-Function oriented synthesis: Design, synthesis, and biological evaluation of novel chemotherapeutic agents in the bryolog series**  
Wender, P. A., Baryza, J. L., Horan, J. C., Verma, V. A.  
AMER CHEMICAL SOC.2006
- **ORGN 713-Progress towards the total synthesis of gnidimacrin: Synthesis of the tricyclic core and macrocycle precursor**  
Wender, P. A., D'Angelo, N. D., Elitzin, V. I., Ernst, M., Jackson-Ugueto, E. E., Kowalski, J. A., McKendry, S., Rehfeuter, M., Sun, R., Voigtlaender, D.  
AMER CHEMICAL SOC.2006
- **ORGN 712-Neurotrophic factors and the treatment of neurodegenerative diseases: Studies on the total synthesis of kirkinine, a uniquely potent neurotrophic agent**  
Wender, P. A., Bi, F., Buschmann, N., Gosselin, F., Kan, C., Kee, J., Ohmura, H.  
AMER CHEMICAL SOC.2006
- **ORGN 894-Step economy and the ideal synthesis: The design of new transition metal-catalyzed reactions**  
Croatt, M. P., Wender, P. A., Deschamps, N. M.  
AMER CHEMICAL SOC.2006
- **Pharmacophore mapping in the laulimalide series: Total synthesis of a vinylogue for a late-stage metathesis diversification strategy** *ORGANIC LETTERS*  
Wender, P. A., Hilinski, M. K., Skaanderup, P. R., Soldermann, N. G., Mooberry, S. L.  
2006; 8 (18): 4105-4108
- **New reactions and step economy: the total synthesis of (+/-)-salsolene oxide based on the type II transition metal-catalyzed intramolecular [4+4] cycloaddition** *TETRAHEDRON*  
Wender, P. A., Croatt, M. P., Witulski, B.  
2006; 62 (32): 7505-7511
- **Laulimalide and synthetic laulimalide analogues are synergistic with paclitaxel and 2-methoxyestradiol** *MOLECULAR PHARMACEUTICS*  
Clark, E. A., Hills, P. M., Davidson, B. S., Wender, P. A., Mooberry, S. L.  
2006; 3 (4): 457-467
- **Releasable luciferin-transporter conjugates: Tools for the real-time analysis of cellular uptake and release** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Jones, L. R., Goun, E. A., Shinde, R., Rothbard, J. B., Contag, C. H., Wender, P. A.  
2006; 128 (20): 6526-6527

- **Asymmetric catalysis of the [5+2] cycloaddition reaction of vinylcyclopropanes and pi-systems** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Haustedt, L. O., Lim, J., Love, J. A., Williams, T. J., Yoon, J.  
2006; 128 (19): 6302-6303
- **Intracellular cargo delivery by an octaarginine transporter adapted to target prostate cancer cells through cell surface protease activation** *BIOCONJUGATE CHEMISTRY*  
Goun, E. A., Shinde, R., Dehnert, K. W., Adams-Bond, A., Wender, P. A., Contag, C. H., Franc, B. L.  
2006; 17 (3): 787-796
- **Design, synthesis, and biological evaluation of a potent, PKC selective, B-ring analog of bryostatin** *ORGANIC LETTERS*  
Wender, P. A., Verma, V. A.  
2006; 8 (9): 1893-1896
- **Rhodium(I)-catalyzed [4+2+2] cycloadditions of 1,3-dienes, alkenes, and alkynes for the synthesis of cyclooctadienes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Christy, J. P.  
2006; 128 (16): 5354-5355
- **Total synthesis and biological evaluation of 11-desmethyllaulimalide, a highly potent simplified laulimalide analogue** *ORGANIC LETTERS*  
Wender, P. A., Hilinski, M. K., Soldermann, N., Mooberry, S. L.  
2006; 8 (7): 1507-1510
- **Correlation of F0F1-ATPase inhibition and antiproliferative activity of apoptolidin analogues** *ORGANIC LETTERS*  
Wender, P. A., Jankowski, O. D., Longcore, K., Tabet, E. A., Seto, H., Tomikawa, T.  
2006; 8 (4): 589-592
- **Rh-I-catalyzed C-C bond activation: Seven-membered ring synthesis by a [6+1] carbonylative ring-expansion reaction of allenylcyclobutanes** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Wender, P. A., Deschamps, N. M., Sun, R.  
2006; 45 (24): 3957-3960
- **Molecular understanding of cellular uptake by arginine-rich cell penetrating peptides** *Symposium on Polymeric Drug Delivery held at the 226th National ACS Meeting*  
Rothbard, J. B., Jessop, T. C., Wender, P. A.  
AMER CHEMICAL SOC.2006: 166-181
- **Metal-catalyzed [2+2+1] cycloadditions of 1,3-dienes, allenes, and CO** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Wender, P. A., Croatt, M. P., Deschamps, N. M.  
2006; 45 (15): 2459-2462
- **Actin is the primary cellular receptor of bistramide A** *NATURE CHEMICAL BIOLOGY*  
Statsuk, A. V., Bai, R. L., Baryza, J. L., Verma, V. A., Hamel, E., Wender, P. A., Kozmin, S. A.  
2005; 1 (7): 383-388
- **Dendrimeric molecular transporters: Synthesis and evaluation of tunable polyguanidino dendrimers that facilitate cellular uptake** *ORGANIC LETTERS*  
Wender, P. A., Kreider, E., Pelkey, E. T., Rothbard, J., VanDeusen, C. L.  
2005; 7 (22): 4815-4818
- **Function oriented synthesis: The design, synthesis, and biological evaluation of a structurally and functionally unique class of therapeutic leads for cancer treatment**  
Baryza, J. L., Wender, P. A.  
AMER CHEMICAL SOC.2005: U2634-U2635
- **Apoptolidins B and C: Isolation, structure determination, and biological activity** *ORGANIC LETTERS*  
Wender, P. A., Sukopp, M., Longcore, K.  
2005; 7 (14): 3025-3028
- **Rh(I)-catalyzed cleavage of unactivated C-O bonds - Carbonylative rearrangement reactions of allenyl ethers to 2-carboalkoxy-1,3-dienes** *CANADIAN JOURNAL OF CHEMISTRY*  
Wender, P. A., Deschamps, N. M., Sun, R.

2005; 83 (6-7): 838-842

- **Role of the A-ring of bryostatin analogues in PKC binding: Synthesis and initial biological evaluation of new A-ring-modified bryologs** *ORGANIC LETTERS*  
Wender, P. A., Clarke, M. O., Horan, J. C.  
2005; 7 (10): 1995-1998
- **Transition metal-catalyzed intermolecular [5+2] and [5+2+1] cycloadditions of allenes and vinylcyclopropanes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wegner, H. A., de Meijere, A., Wender, P. A.  
2005; 127 (18): 6530-6531
- **Identification of a tunable site in bryostatin analogs: C20 bryologs through late stage diversification** *ORGANIC LETTERS*  
Wender, P. A., Baryza, J. L.  
2005; 7 (6): 1177-1180
- **Multicomponent cycloadditions: The four-component [5+1+2+1] cycloaddition of vinylcyclopropanes, alkynes, and CO** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Gamber, G. G., Hubbard, R. D., Pham, S. M., Zhang, L.  
2005; 127 (9): 2836-2837
- **Adaptive translocation: the role of hydrogen bonding and membrane potential in the uptake of guanidinium-rich transporters into cells** *ADVANCED DRUG DELIVERY REVIEWS*  
Rothbard, J. B., Jessop, T. C., Wender, P. A.  
2005; 57 (4): 495-504
- **Late-stage intermolecular CH activation for lead diversification: A highly chemoselective oxyfunctionalization of the C-9 position of potent bryostatin analogues** *ORGANIC LETTERS*  
Wender, P. A., Hilinski, M. K., Mayweg, A. V.  
2005; 7 (1): 79-82
- **Effect of serum and antioxidants on the immunogenicity of protein kinase C-activated chronic lymphocytic leukemia cells** *JOURNAL OF IMMUNOTHERAPY*  
Hammond, C., Shi, Y. H., Mena, J., Tomic, J., Cervi, D., He, L. W., Millar, A. E., DeBenedette, M., Schuh, A. C., Baryza, J. L., Wender, P. A., Radvanyi, L., Spaner, et al  
2005; 28 (1): 28-39
- **Rhodium(I)-Catalyzed [5+2], [6+2], and [5+2+1] Cycloadditions: New Reactions for Organic Synthesis** *MODERN RHODIUM-CATALYZED ORGANIC REACTIONS*  
Wender, P. A., Gamber, G. G., Williams, T. J., Evans, P. A.  
2005: 263-299
- **Synthetic bryostatin analogues activate the RasGRP1 signaling pathway** *JOURNAL OF MEDICINAL CHEMISTRY*  
Stone, J. C., Stang, S. L., Zheng, Y., Dower, N. A., Brenner, S. E., Baryza, J. L., Wender, P. A.  
2004; 47 (26): 6638-6644
- **Simplified analogs of bryostatin with anticancer activity display greater potency for translocation of PKC delta-GFP** *CHEMISTRY & BIOLOGY*  
Baryza, J. L., Brenner, S. E., Craske, M. L., Meyer, T., Wender, P. A.  
2004; 11 (9): 1261-1267
- **Guanidinium-rich molecular transporters: Mechanisms and applications.**  
Wender, P. A., Rothbard, J., Jessop, T.  
AMER CHEMICAL SOC.2004: U910
- **Role of membrane potential and hydrogen bonding in the mechanism of translocation of guanidinium-rich peptides into cells** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Rothbard, J. B., Jessop, T. C., Lewis, R. S., Murray, B. A., Wender, P. A.  
2004; 126 (31): 9506-9507
- **On the mechanism of [Rh(CO)(2)Cl](2)-catalyzed intermolecular (5+2) reactions between vinylcyclopropanes and alkynes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Yu, Z. X., Wender, P. A., Houk, K. N.

2004; 126 (30): 9154-9155

- **Nanotube molecular transporters: Internalization of carbon nanotube-protein conjugates into mammalian cells** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Kam, N. W., Jessop, T. C., Wender, P. A., Dai, H. J.  
2004; 126 (22): 6850-6851
- **Microtubule-stabilizing agents based on designed laulimalide analogues** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Mooberry, S. L., Randall-Hlubek, D. A., Leal, R. M., Hegde, S. G., Hubbard, R. D., Zhang, L., Wender, P. A.  
2004; 101 (23): 8803-8808
- **Rhodium(I)-Catalyzed [2+2+1] cycloadditions of 1,3-dienes, alkenes, and CO** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Croatt, M. P., Deschamps, N. M.  
2004; 126 (19): 5948-5949
- **Selectivity in translocation of protein kinase C isoforms by new analogs of bryostatin.**  
Wender, P. A., Baryza, J. L., Brenner, S. E., Craske, M. L., Clarke, M. O., Horan, J. C., Mayweg, A. V., Meyer, T.  
AMER CHEMICAL SOC.2004: U70
- **Function oriented synthesis: the design, synthesis, PKC binding and translocation activity of a new bryostatin analog.** *Current drug discovery technologies*  
Wender, P. A., Baryza, J. L., Brenner, S. E., Clarke, M. O., Craske, M. L., Horan, J. C., Meyer, T.  
2004; 1 (1): 1-11
- **Intermolecular dienyl Pauson-Khand reaction** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Wender, P. A., Deschamps, N. M., Williams, T. T.  
2004; 43 (23): 3076-3079
- **A new synthetic approach to the C ring of known as well as novel bryostatin analogues** *ORGANIC LETTERS*  
Wender, P. A., Koehler, M. F., Sendzik, M.  
2003; 5 (24): 4549-4552
- **Delivery of antimicrobials into parasites** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Samuel, B. U., Hearn, B., Mack, D., Wender, P., Rothbard, J., Kirisits, M. J., Mui, E., Wernimont, S., Roberts, C. W., Muench, S. P., Rice, D. W., Prigge, S. T., Law, et al  
2003; 100 (24): 14281-14286
- **Breaching biological barriers: protein translocation domains as tools for molecular imaging and therapy.** *Molecular imaging*  
Franc, B. L., Mandl, S. J., Siprashvili, Z., Wender, P., Contag, C. H.  
2003; 2 (4): 313-323
- **Synthesis and biological evaluation of (-)-laulimalide analogues** *ORGANIC LETTERS*  
Wender, P. A., Hegde, S. G., Hubbard, R. D., Zhang, L., Mooberry, S. L.  
2003; 5 (19): 3507-3509
- **Arginine-based molecular transporters: The synthesis and chemical evaluation of releasable taxol-transporter conjugates** *ORGANIC LETTERS*  
Kirschberg, T. A., VanDeusen, C. L., Rothbard, J. B., Yang, M., Wender, P. A.  
2003; 5 (19): 3459-3462
- **Gene transfer via reversible plasmid condensation with cysteine-flanked, internally spaced arginine-rich peptides** *HUMAN GENE THERAPY*  
Siprashvili, Z., Scholl, F. A., Oliver, S. F., Adams, A., Contag, C. H., Wender, P. A., Khavari, P. A.  
2003; 14 (13): 1225-1233
- **Facile synthetic access to and biological evaluation of the macrocyclic core of apoptolidin** *ORGANIC LETTERS*  
Wender, P. A., Jankowski, O. D., Tabet, E. A., Seto, H.  
2003; 5 (13): 2299-2302
- **Photoinduced cleavage of DNA by bromofluoroacetophenone-pyrrolicarboxamide conjugates** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Wender, P. A., Jeon, R.  
2003; 13 (10): 1763-1766

- **Guanidinium rich peptide transporters and drug delivery** *CURRENT PROTEIN & PEPTIDE SCIENCE*  
Wright, L. R., Rothbard, J. B., Wender, P. A.  
2003; 4 (2): 105-124
- **Toward a structure-activity relationship for apoptolidin: Selective functionalization of the hydroxyl group array** *ORGANIC LETTERS*  
Wender, P. A., Jankowski, O. D., Tabet, E. A., Seto, H.  
2003; 5 (4): 487-490
- **A concise, selective synthesis of the polyketide spacer domain of a potent bryostatin analogue** *ORGANIC LETTERS*  
Wender, P. A., Mayweg, A. V., VanDeusen, C. L.  
2003; 5 (3): 277-279
- **Inspirations from nature. New reactions, therapeutic leads, and drug delivery systems** *PURE AND APPLIED CHEMISTRY*  
Wender, P. A., Baryza, J. L., Brenner, S. E., Clarke, M. O., Gamber, C. G., Horan, J. C., Jessop, T. C., Kan, C., Pattabiraman, K., Williams, T. J.  
2003; 75 (2-3): 143-155
- **The dienyl Pauson-Khand reaction** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Wender, P. A., Deschamps, N. M., Gamber, G. G.  
2003; 42 (16): 1853-1857
- **Rhodium-catalyzed [5+2] cycloaddition reactions in water** *SYNLETT*  
Wender, P. A., Love, J. A., Williams, T. J.  
2003: 1295-1298
- **Transition metal-catalyzed hetero-[5+2] cycloadditions of cyclopropyl imines and alkynes: Dihydroazepines from simple, readily available starting materials** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Pedersen, T. M., Scanio, M. J.  
2002; 124 (51): 15154-15155
- **The practical synthesis of a novel and highly potent analogue of bryostatin** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Baryza, J. L., Bennett, C. E., Bi, C., Brenner, S. E., Clarke, M. O., Horan, J. C., Kan, C., Lacote, E., Lipka, B., Nell, P. G., Turner, T. M.  
2002; 124 (46): 13648-13649
- **Oligocarbamate molecular transporters: Design, synthesis, and biological evaluation of a new class of transporters for drug delivery** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Rothbard, J. B., Jessop, T. C., Kreider, E. L., Wylie, B. L.  
2002; 124 (45): 13382-13383
- **Isoapoptolidin: Structure and activity of the ring-expanded isomer of apoptolidin** *ORGANIC LETTERS*  
Wender, P. A., Gullledge, A. V., Jankowski, O. D., Seto, H.  
2002; 4 (22): 3819-3822
- **Arginine-rich molecular transporters for drug delivery: Role of backbone spacing in cellular uptake** *JOURNAL OF MEDICINAL CHEMISTRY*  
Rothbard, J. B., Kreider, E., VanDeusen, C. L., Wright, L., Wylie, B. L., Wender, P. A.  
2002; 45 (17): 3612-3618
- **Peptide delivery to tissues via reversibly linked protein transduction sequences** *BIOTECHNIQUES*  
Robbins, P. B., Oliver, S. F., Sheu, S. M., Goodnough, J. B., Wender, P., Khavari, P. A.  
2002; 33 (1): 190-?
- **Total synthesis of (-)-lulimalide** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Hegde, S. G., Hubbard, R. D., Zhang, L.  
2002; 124 (18): 4956-4957
- **Three-component cycloadditions: The first transition metal-catalyzed [5+2+1] cycloaddition reactions** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Gamber, G. G., Hubbard, R. D., Zhang, L.  
2002; 124 (12): 2876-2877
- **[(arene)Rh(cod)](+) complexes as catalysts for [5+2] cycloaddition reactions** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*

- Wender, P. A., Williams, T. J.  
2002; 41 (23): 4550-?
- **Molecular transporters for peptides: delivery of a cardioprotective epsilon PKC agonist peptide into cells and intact ischemic heart using a transport system, R-7** *CHEMISTRY & BIOLOGY*  
Chen, L., Wright, L. R., Chen, C. H., Oliver, S. F., Wender, P. A., Mochly-Rosen, D.  
2001; 8 (12): 1123-1129
  - **An efficient, scalable synthesis of the molecular transporter octaarginine via a segment doubling strategy** *ORGANIC LETTERS*  
Wender, P. A., Jessop, T. C., Pattabiraman, K., Pelkey, E. T., VanDeusen, C. L.  
2001; 3 (21): 3229-3232
  - **Serial [5+2]/[4+2] Cycloadditions: Facile, Preparative, Multi-Component Syntheses of Polycyclic Compounds from Simple, Readily Available Starting Materials** This research was supported by grant CHE-9800445 from the National Science Foundation. The Stanford Graduate Fellowship (M.J.C.S. and G.G.G.) is gratefully acknowledged. *Angewandte Chemie (International ed. in English)*  
Wender, P. A., Gamber, G. G., Scanio, M. J.  
2001; 40 (20): 3895-3897
  - **Serial [5+2]/[4+2] Cycloadditions: Facile, Preparative, Multi-Component Syntheses of Polycyclic Compounds from Simple, Readily Available Starting Materials.** *Angewandte Chemie (International ed. in English)*  
Wender, P. A., Gamber, G. G., Scanio, M. J.  
2001; 40 (20): 3895-3897
  - **Toward the identification of selective modulators of protein kinase C (PKC) isozymes: Establishment of a binding assay for PKC isozymes using synthetic C1 peptide receptors and identification of the critical residues involved in the phorbol ester binding** *BIOORGANIC & MEDICINAL CHEMISTRY*  
Shindo, M., Irie, K., Nakahara, A., Ohigashi, H., Konishi, H., Kikkawa, U., Fukuda, H., Wender, P. A.  
2001; 9 (8): 2073-2081
  - **Asymmetric synthesis of the tricyclic core of NGF-inducing cyathane diterpenes via a transition-metal-catalyzed [5+2] cycloaddition** *ORGANIC LETTERS*  
Wender, P. A., Bi, F. C., Brodney, M. A., Gosselin, F.  
2001; 3 (13): 2105-2108
  - **The C4 hydroxyl group of phorbol esters is not necessary for protein kinase C binding** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Tanaka, M., Irie, K., Nakagawa, Y., Nakamura, Y., Ohigashi, H., Wender, P. A.  
2001; 11 (5): 719-722
  - **Photocleavage of DNA by 4'-bromoacetophenone analogs** *ARCHIVES OF PHARMACAL RESEARCH*  
Jeon, R., Wender, P. A.  
2001; 24 (1): 39-43
  - **The first intermolecular transition metal-catalyzed [5+2] cycloadditions with simple, unactivated, vinylcyclopropanes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Barzilay, C. M., Dyckman, A. J.  
2001; 123 (1): 179-180
  - **Serial [5+2]/[4+2] cycloadditions: Facile, preparative, multi-component syntheses of polycyclic compounds from simple, readily available starting materials** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Wender, P. A., Gamber, G. G., Scanio, M. J.  
2001; 40 (20): 3895-?
  - **Design and synthesis of new DNA photocleavers, 4'-bromoacetophenone-pyrrololecarboxamide hybrid compounds** *ARCHIVES OF PHARMACAL RESEARCH*  
Jeon, R., Wender, P. A.  
2000; 23 (6): 585-588
  - **The design, synthesis, and evaluation of molecules that enable or enhance cellular uptake: Peptoid molecular transporters** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Wender, P. A., Mitchell, D. J., Pattabiraman, K., Pelkey, E. T., Steinman, L., Rothbard, J. B.  
2000; 97 (24): 13003-13008
  - **Conjugation of arginine oligomers to cyclosporin A facilitates topical delivery and inhibition of inflammation** *NATURE MEDICINE*

- Rothbard, J. B., Garlington, S., Lin, Q., Kirschberg, T., Kreider, E., McGrane, P. L., Wender, P. A., Khavari, P. A.  
2000; 6 (11): 1253-1257
- **Synthesis and tumor-promoting activities of 12-epi-phorbol-12, 13-dibutyrate** *BIOSCIENCE BIOTECHNOLOGY AND BIOCHEMISTRY*  
Irie, K., Nakahara, A., Ikawa, Y., Tanaka, M., Nakagawa, Y., Nakamura, Y., Ohigashi, H., Wender, P. A.  
2000; 64 (11): 2429-2436
  - **Synthesis and PKC isozyme surrogate binding of indothiolactam-V, a new thioamide analogue of tumor promoting indolactam-V** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Nakagawa, Y., Irie, K., Ohigashi, H., Hayashi, H., Wender, P. A.  
2000; 10 (18): 2087-2090
  - **Synthesis and biological evaluation of a new class of bryostatin analogues: the role of the C20 substituent in protein kinase C binding** *TETRAHEDRON LETTERS*  
Wender, P. A., Hinkle, K. W.  
2000; 41 (35): 6725-6729
  - **Transition metal-catalyzed [6+2] cycloadditions of 2-vinylcyclobutanones and alkenes: A new reaction for the synthesis of eight-membered rings** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Correa, A. G., Sato, Y., Sun, R.  
2000; 122 (32): 7815-7816
  - **Asymmetric total synthesis of (+)-aphanamol I based on the transition metal catalyzed [5+2] cycloaddition of allenes and vinylcyclopropanes** *ORGANIC LETTERS*  
Wender, P. A., Zhang, L.  
2000; 2 (15): 2323-2326
  - **A new and practical five-carbon component for metal-catalyzed** *Organic letters*  
WENDER, Dyckman, Husfeld, Scanio  
2000; 2 (11): 1609-1611
  - **A new and practical five-carbon component for metal-catalyzed [5+2] cycloadditions: Preparative scale syntheses of substituted cycloheptenones** *ORGANIC LETTERS*  
Wender, P. A., Dyckman, A. J., Husfeld, C. O., Scanio, M. J.  
2000; 2 (11): 1609-1611
  - **Synthesis and biological evaluation of bryostatin analogues: the role of the A-ring** *TETRAHEDRON LETTERS*  
Wender, P. A., Lippa, B.  
2000; 41 (7): 1007-1011
  - **Bromoacetophenone-based photonucleases: Photoinduced cleavage of DNA by 4'-bromoacetophenone-pyrrolicarboxamide conjugates** *ORGANIC LETTERS*  
Wender, P. A., Jeon, R.  
1999; 1 (13): 2117-2120
  - **Transition metal-catalyzed [5+2] cycloadditions of 2-substituted-1-vinylcyclopropanes: Catalyst control and reversal of regioselectivity** *ORGANIC LETTERS*  
Wender, P. A., Dyckman, A. J.  
1999; 1 (13): 2089-2092
  - **Transition metal-catalyzed [5+2] cycloadditions with substituted cyclopropanes: First studies of regio- and stereoselectivity** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Dyckman, A. J., Husfeld, C. O., Kadereit, D., Love, J. A., Rieck, H.  
1999; 121 (44): 10442-10443
  - **A new class of simplified phorbol ester analogues: Synthesis and binding to PKC and eta PKC-C1B (eta PKC-CPD2)** *ORGANIC LETTERS*  
Wender, P. A., Kirschberg, T. A., Williams, P. D., Bastiaans, H. M., Irie, K.  
1999; 1 (7): 1009-1012
  - **Synthesis and phorbol ester-binding studies of the individual cysteine-rich motifs of protein kinase D** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Irie, K., Nakahara, A., Ohigashi, H., Fukuda, H., Wender, P. A., Konishi, H., Kikkawa, U.

1999; 9 (17): 2487-2490

- **The rational design of potential chemotherapeutic agents: Synthesis of bryostatin analogues** *3rd Winter Conference on Medicinal and Bioorganic Chemistry*  
Wender, P. A., Hinkle, K. W., Koehler, M. F., Lippa, B.  
JOHN WILEY & SONS INC.1999: 388-407
- **Rhodium-catalyzed [5+2] cycloadditions of allenes and vinylcyclopropanes: Asymmetric total synthesis of (+)-dictamnol** *ORGANIC LETTERS*  
Wender, P. A., Fuji, M., Husfeld, C. O., Love, J. A.  
1999; 1 (1): 137-139
- **Selective binding of bryostatin analogues to the cysteine rich domains of protein kinase C isozymes** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Wender, P. A., Lippa, B., Park, C. M., Irie, K., Nakahara, A., Ohigashi, H.  
1999; 9 (12): 1687-1690
- **Transition metal-catalyzed [5+2] cycloadditions of allenes and vinylcyclopropanes: First studies of endo-exo selectivity, chemoselectivity, relative stereochemistry, and chirality transfer** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Glorius, F., Husfeld, C. O., Langkopf, E., Love, J. A.  
1999; 121 (22): 5348-5349
- **Solid-phase synthesis, mass spectrometric analysis of the zinc-folding, and phorbol ester-binding studies of the 116-mer peptide containing the tandem cysteine-rich C1 domains of protein kinase C gamma** *BIOORGANIC & MEDICINAL CHEMISTRY*  
Fukuda, H., Irie, K., Nakahara, A., Ohigashi, H., Wender, P. A.  
1999; 7 (6): 1213-1221
- **Mapping phorbol ester binding domains of protein kinase C (PKC): The design, synthesis and biological activity of novel phorbol ester dimers** *SYNTHESIS-STUTTGART*  
Wender, P. A., Koehler, M. F., Wright, D. L., Irie, K.  
1999: 1401-1406
- **Synthesis and biological evaluation of fully synthetic bryostatin analogues** *TETRAHEDRON LETTERS*  
Wender, P. A., De Brabander, J., Harran, P. G., Hinkle, K. W., Lippa, B., Pettit, G. R.  
1998; 39 (47): 8625-8628
- **A formal synthesis of crinipellin B based on the arene-alkene meta-photocycloaddition reaction** *TETRAHEDRON LETTERS*  
Wender, P. A., Dore, T. M.  
1998; 39 (47): 8589-8592
- **The transition metal-catalyzed intermolecular [5+2] cycloaddition: The homologous Diels-Alder reaction** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Rieck, H., Fuji, M.  
1998; 120 (42): 10976-10977
- **Synthesis and binding studies of the 116-mer peptide containing the double cysteine-rich motifs of protein kinase C gamma** *TETRAHEDRON LETTERS*  
Fukuda, H., Irie, K., Nakahara, A., Oie, K., Ohigashi, H., Wender, P. A.  
1998; 39 (43): 7943-7946
- **Molecular basis for protein kinase C isozyme-selective binding: The synthesis, folding, and phorbol ester binding of the cysteine-rich domains of all protein kinase C isozymes** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Irie, K., Oie, K., Nakahara, A., Yanai, Y., Ohigashi, H., Wender, P. A., Fukuda, H., Konishi, H., Kikkawa, U.  
1998; 120 (36): 9159-9167
- **The first metal-catalyzed intramolecular [5+2] cycloadditions of vinylcyclopropanes and alkenes: Scope, stereochemistry, and asymmetric catalysis** *TETRAHEDRON*  
Wender, P. A., Husfeld, C. O., Langkopf, E., Love, J. A., Pleuss, N.  
1998; 54 (25): 7203-7220
- **The design, computer modeling, solution structure, and biological evaluation of synthetic analogs of bryostatin 1** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Wender, P. A., Debrabander, J., Harran, P. G., Jimenez, J. M., Koehler, M. F., Lippa, B., Park, C. M., Siedenbiedel, C., Pettit, G. R.  
1998; 95 (12): 6624-6629

- **Synthesis of the first members of a new class of biologically active bryostatin analogues** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., De Brabander, J., Harran, P. G., Jimenez, J. M., Koehler, M. F., Lipka, B., Park, C. M., Shiozaki, M.  
1998; 120 (18): 4534-4535
- **First studies of the transition metal-catalyzed [5+2] cycloadditions of alkenes and vinylcyclopropanes: Scope and stereochemistry** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Husfeld, C. O., Langkopf, E., Love, J. A.  
1998; 120 (8): 1940-1941
- **The chemistry-medicine continuum: Synthetic, computer, spectroscopic and biological studies on new chemotherapeutic leads** *AFMC International Medicinal Chemistry Symposium (AIMECS 97)*  
Wender, P. A., Martin-Cantalejo, Y., Carpenter, A. J., Chiu, A., De Brabander, J., Harran, P. G., Jimenez, J. M., Koehler, M. F., Lipka, B., Morrison, J. A., Muller, S. G., Muller, S. N., Park, et al  
INT UNION PURE APPLIED CHEMISTRY. 1998: 539-46
- **Towards the ideal synthesis** *CHEMISTRY & INDUSTRY*  
Wender, P. A., Handy, S. T., Wright, D. L.  
1997: 765-?
- **Comparison of chemical characteristics of the first and the second cysteine-rich domains of protein kinase C gamma** *BIOORGANIC & MEDICINAL CHEMISTRY*  
Irie, K., Yanai, Y., Oie, K., Ishizawa, J., Nakagawa, Y., Ohigashi, H., Wender, P. A., Kikkawa, U.  
1997; 5 (8): 1725-1737
- **Synthesis of novel taxol analogs and evaluation of their biological activities** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Wender, P. A., Lee, D. S., Lal, T. K., Horwitz, S. B., Rao, S.  
1997; 7 (14): 1941-1944
- **Protein kinase C regulatory domain surrogate peptides: Effects of metal ions on folding, phorbol ester-binding, and selectivity** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Irie, K., Yanai, Y., Oie, K., Ohigashi, H., Wender, P. A.  
1997; 7 (8): 965-970
- **Synthesis of 1-(2-naphthoyl) benzotriazoles as photoactivated DNA cleaving agents** *ARCHIVES OF PHARMACAL RESEARCH*  
Yang, J. W., Wender, P. A.  
1997; 20 (2): 197-199
- **The pinene path to taxanes .6. A concise stereocontrolled synthesis of taxol** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Badham, N. F., Conway, S. P., Floreancig, P. E., Glass, T. E., HOUZE, J. B., Krauss, N. E., Lee, D. S., Marquess, D. G., McGrane, P. L., Meng, W., Natchus, M. G., Shuker, et al  
1997; 119 (11): 2757-2758
- **The pinene path to taxanes .5. Stereocontrolled synthesis of a versatile taxane precursor** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Wender, P. A., Badham, N. F., Conway, S. P., Floreancig, P. E., Glass, T. E., Granicher, C., HOUZE, J. B., Janichen, J., Lee, D. S., Marquess, D. G., McGrane, P. L., Meng, W., MUCCIARO, et al  
1997; 119 (11): 2755-2756
- **Synthesis and characterization of the first cysteine-rich domain of novel protein kinase C** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Yanai, Y., Irie, K., Ohigashi, H., Wender, P. A.  
1997; 7 (2): 117-122
- **Sequence-specific DNA cleavage by conjugates of benzotriazoles and minor groove binders.** *JACS*  
Wender PA., Touami SM, Poon CC  
1997: 7611-7612.
- **The first formal asymmetric synthesis of phorbol.** *JACS*  
Wender PA, Rice KD, Schnute ME.  
1997: 7987-7898
- **The pinene path to taxanes .6. A concise stereocontrolled synthesis of taxol.** *JACS*  
Wender PA, Badham NF, Conway SP, Floreancig PE, Glass TE, Houze JB, Krauss NE, Lee DS, Marquess DG, McGrane PL, Meng W.

1997: 2757-2758.

- **The first synthesis of a daphnane diterpene: the enantiocontrolled total synthesis of (+)-resiniferatoxin.** *JACS*  
Wender PA, Jesudason CD, Nakahira H, Tamura N, Tebbe AL, Ueno Y.  
1997: 12976-12977.
- **Synthesis and biological activities of new conformationally restricted analogues of (-)-indolactam-V: Elucidation of the biologically active conformation of the tumor-promoting teleocidins** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Irie, K., Isaka, T., Iwata, Y., Yanai, Y., Nakamura, Y., Koizumi, F., Ohigashi, H., Wender, P. A., Satomi, Y., Nishino, H.  
1996; 118 (44): 10733-10743
- **Synthesis and characterization of new photolabile phorbol esters for affinity labeling of protein kinase C** *JOURNAL OF ORGANIC CHEMISTRY*  
Irie, K., Ishii, T., Ohigashi, H., Wender, P. A., Miller, B. L., Takeda, N.  
1996; 61 (6): 2164-2173
- **Synthesis and characterization of the second cysteine-rich region of mouse skin PKC  $\epsilon$**  *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Irie, K., Yanai, Y., Ohigashi, H., Wender, P. A., Miller, B. L.  
1996; 6 (4): 353-356
- **Introduction: Frontiers in Organic Synthesis.** *Chemical reviews*  
Wender, P. A.  
1996; 96 (1): 1-2
- **The Pinene Path to Taxanes. 4. Approaches to Taxol and Taxol Analogs through Elaboration of Aromatic C-Ring Precursors.** *The Journal of organic chemistry*  
Wender, P. A., Glass, T. E., Krauss, N. E., Mühlebach, M. n., Peschke, B. n., Rawlins, D. B.  
1996; 61 (22): 7662-63
- **THE PINENE PATH TO TAXOL - READILY ACCESSIBLE A-RING BUILDING-BLOCKS BASED ON NOVEL ALKYL LITHIUM AND ALKENYL LITHIUM REAGENTS WITH INTERNAL CARBONYL GROUPS** *TETRAHEDRON LETTERS*  
Wender, P. A., Wessjohann, L. A., Peschke, B., Rawlins, D. B.  
1995; 36 (40): 7181-7184
- **TOWARD THE SYNTHESIS OF TAXOL AND ITS ANALOGS - INCORPORATION OF NONAROMATIC C-RINGS IN THE PINENE PATHWAY** *TETRAHEDRON LETTERS*  
Wender, P. A., Floreancig, P. E., Glass, T. E., Natchus, M. G., Shuker, A. J., Sutton, J. C.  
1995; 36 (28): 4939-4942
- **SYNTHESIS AND BIOLOGICAL-ACTIVITIES OF NEW CONFORMATIONALLY FIXED ANALOGS OF (-)-INDOLACTAM-V, THE CORE STRUCTURE OF TUMOR-PROMOTING TELEOCIDINS** *BIOORGANIC & MEDICINAL CHEMISTRY LETTERS*  
Irie, K., Koizumi, F., Iwata, Y., Ishii, T., Yanai, Y., Nakamura, Y., Ohigashi, H., Wender, P. A.  
1995; 5 (5): 453-458
- **THE INTRAMOLECULAR ADDITION OF SILYLATED ALKYNES TO ALDEHYDES - METHODOLOGY FOR THE CONSTRUCTION OF CYCLIC ENEDIYNES AND ITS APPLICATION TO DYNEMICIN ANALOGS** *TETRAHEDRON LETTERS*  
Wender, P. A., Beckham, S., Mohler, D. L.  
1995; 36 (2): 209-212
- **IDENTIFICATION, ACTIVITY, AND STRUCTURAL STUDIES OF PEPTIDES INCORPORATING THE PHORBOL ESTER-BINDING DOMAIN OF PROTEIN-KINASE-C** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Wender, P. A., Irie, K., Miller, B. L.  
1995; 92 (1): 239-243
- **THE PINENE PATH TO TAXANES - GENESIS AND EVOLUTION OF A STRATEGY FOR SYNTHESIS** *Symposium on Taxane Anticancer Agents - Basic Science and Current Status, at the 207th National Meeting of the American-Chemical-Society*  
Wender, P. A., Badham, N. F., Conway, S. P., Floreancig, P. E., Glass, T. E., HOUZE, J. B., Krauss, N. E., Lee, D. S., Marquess, D. G., McGrane, P. L., Meng, W., MUCCIARO, T. P., Muhlebach, et al  
AMER CHEMICAL SOC.1995: 326-339
- **A 2ND-GENERATION PHOTOCHEMICALLY ACTIVATABLE DYNEMICIN ANALOG - A CONCISE SYNTHESIS AND DNA CLEAVAGE STUDIES** *SYNTHESIS-STUTTGART*  
Wender, P. A., Beckham, S., OLEARY, J. G.

1994; 1278-1282

- **THE SYNTHESIS AND CHEMISTRY OF A SIMPLIFIED, FUNCTIONAL ANALOG OF NEOCARZINOSTATIN CHROMOPHORE - IDENTIFICATION OF AN INTRAMOLECULAR 1,5-HYDROGEN ATOM-TRANSFER RELEVANT TO THE MECHANISM AND CLEAVAGE SELECTIVITY OF DIYL-BASED DNA-CLEAVING AGENTS** *TETRAHEDRON*  
WENDER, P. A., TEBBE, M. J.  
1994; 50 (5): 1419-1434
- **A PHOTOCHEMICALLY TRIGGERED DNA-CLEAVING AGENT - SYNTHESIS, MECHANISTIC AND DNA CLEAVAGE STUDIES ON A NEW ANALOG OF THE ANTITUMOR ANTIBIOTIC DYNEMICIN** *JOURNAL OF ORGANIC CHEMISTRY*  
WENDER, P. A., ZERCHER, C. K., BECKHAM, S., HAUBOLD, E. M.  
1993; 58 (22): 5867-5869
- **SYNTHESIS AND BINDING OF PHOTOAFFINITY LIGAND CANDIDATES FOR PROTEIN-KINASE-C** *JOURNAL OF ORGANIC CHEMISTRY*  
WENDER, P. A., IRIE, K., MILLER, B. L.  
1993; 58 (16): 4179-4181
- **TOWARD THE SYNTHESIS OF THE TAXOL C,D RING-SYSTEM - PHOTOLYSIS OF ALPHA-METHOXY KETONES** *TETRAHEDRON*  
Wender, P. A., Rawlins, D. B.  
1992; 48 (34): 7033-7048
- **STUDIES ON DNA-CLEAVING AGENTS - COMPUTER MODELING ANALYSIS OF THE MECHANISM OF ACTIVATION AND CLEAVAGE OF DYNEMICIN OLIGONUCLEOTIDE COMPLEXES** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Wender, P. A., Kelly, R. C., Beckham, S., Miller, B. L.  
1991; 88 (19): 8835-8839
- **MODELING OF THE BRYOSTATINS TO THE PHORBOL ESTER PHARMACOPHORE ON PROTEIN KINASE-C** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Wender, P. A., CRIBBS, C. M., Koehler, K. F., Sharkey, N. A., Herald, C. L., Kamano, Y., Pettit, G. R., Blumberg, P. M.  
1988; 85 (19): 7197-7201
- **ANALYSIS OF THE PHORBOL ESTER PHARMACOPHORE ON PROTEIN-KINASE-C AS A GUIDE TO THE RATIONAL DESIGN OF NEW CLASSES OF ANALOGS** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Wender, P. A., Koehler, K. F., Sharkey, N. A., DELLAQUILA, M. L., Blumberg, P. M.  
1986; 83 (12): 4214-4218