

Curriculum Vitae *Phil S. Baran*

Appointment:

The Scripps Research Institute
Department of Chemistry
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April, **2009** Member, Skaggs Institute for Chemical Biology

June, **2008** Professor of Chemistry

July, **2006** Associate Professor of Chemistry (with Tenure)

June, **2003** Assistant Professor of Chemistry

Date/Place of Birth:

10 Aug 1977 / Denville, NJ, USA

Citizenship:

United States

Education

2001 – 2003

Postdoctoral Associate
Advisor: Professor E.J. Corey
Harvard University, Cambridge, Massachusetts

1997 – 2001

Ph.D. Graduate Student in Chemistry
Advisor: Professor K.C. Nicolaou
The Scripps Research Institute, La Jolla, California

1995 – 1997

B.S. with Honors in Chemistry
Advisor: Professor D.I. Schuster
New York University, New York, New York

1991 – 1995

Simultaneous high school graduation from Mt. Dora High School and
A.A. degree with honors from Lake Sumter Community College, Florida

Awards

- Sackler Prize, 2009
- National Fresenius Award, ACS, 2007
- Novartis Lecturer, 2007 – 2008
- Hirata Gold Medal, 2007
- Pfizer Award for Creativity in Organic Synthesis, 2006

- Beckman Foundation Fellow, 2006 – 2008
- Alfred P. Sloan Foundation Fellow, 2006 – 2008
- BMS Unrestricted “Freedom to Discover” Grant, 2006 – 2010
- NSF CAREER Award, 2006 – 2010
- Eli Lilly Young Investigator Award, 2005 – 2006
- AstraZeneca Excellence in Chemistry Award, 2005
- DuPont Young Professor Award, 2005
- Roche Excellence in Chemistry Award, 2005
- Amgen Young Investigator Award, 2005
- Searle Scholar Award, 2005
- GlaxoSmithKline Chemistry Scholar Award, 2005 – 2006

Awards (Pre- and Post-Doctoral)

- Nobel Laureate Signature Award in Chemistry, ACS, 2003
- National Institutes of Health Post-Doctoral Fellowship Award, Harvard, 2001 – 2003
- Hoffmann-La Roche Award for Excellence in Organic Chemistry, 2000
- Lesly Starr Shelton Award for Excellence in Chemistry Graduate Studies, Scripps, 2000
- National Science Foundation Pre-Doctoral Research Fellowship Award, Scripps, 1998 – 2001
- William and Sharon Bauce Family Foundation Fellowship Award, Scripps, 1997
- Dean’s Undergraduate Research Fund Award in Chemistry, NYU, 1996 – 1997
- George Granger Brown Award for Excellence in Chemistry, NYU, 1996 – 1997
- NYU College of Art and Sciences Scholarship, 1995 – 1997
- Herman and Margaret Sokol Chemistry Fellowship, NYU, 1995 – 1997

Publications

1. Burns, N.Z.; Krylova, I.; Hannoush, R.N.; Baran, P.S. Scalable Total Synthesis and Biological Evaluation of Haouamine A and its Atropoisomer, *J. Am. Chem. Soc.* **2009**, *131*, *in press*.
2. Newhouse, T.; Baran, P.S.; Hoffmann, R.W. The Economies of Synthesis, *Chem. Soc. Rev.* **2009**, *in press*.
3. Burns, N.Z.; Jessing, M.; Baran, P.S. Total Synthesis of Haouamine A: The Indeno-tetrahydropyridine Core, *Tetrahedron* **2009**, *in press*. (Special issue dedicated to Tetrahedron award winner)
4. Chen, K.; Baran, P.S. Total Synthesis of Eudesmane Terpenes by Site-Selective C–H Oxidations, *Nature* **2009**, *459*, 824–828.
5. Newhouse, T.; Lewis, C.A.; Baran, P.S. Enantiospecific Total Syntheses of Kapakahines B and F, *J. Am. Chem. Soc.* **2009**, *131*, 6360 – 6361.

6. Shi, J.; Shigehisa, H.; Guerrero, C.A.; Shenvi, R.A.; Li, C.; Baran, P.S. Stereodivergent Synthesis of 17 α - and 17 β -Aryl Steroids: Application and Biological Evaluation of D-Ring Cortistatin Analogues, *Angew. Chem. Int. Ed.* **2009**, *48*, 4328 – 4331.
7. Burns, N.Z.; Baran, P.S.; Hoffmann, R.W. Redox Economy in Organic Synthesis, *Angew. Chem. Int. Ed.* **2009**, *48*, 2854 – 2867.
8. Young, I.S.; Baran, P.S. Protecting Group Free Synthesis as an Opportunity for Invention, *Nature Chem.* **2009**, *1*, 193 – 205.
9. Shenvi, R.A.; O'Malley, D.P.; Baran, P.S. Chemoselectivity: The Mother of Invention in Total Synthesis, *Acc. Chem. Res.* **2009**, *42*, 530 – 541.
10. Hafensteiner, B.D.; Santamaria, M.E.; Petricci, E.; Baran, P.S. An Improved Synthesis of alpha, beta-Unsaturated Nitrones Relevant to the Stephacidins and Analogs Thereof, *Bioorg. Med. Chem. Lett.* **2009**, in press. (Special issue dedicated to Tetrahedron young investigator)
11. Eastman, K.; Baran, P. S. A Simple Method for the Direct Arylation of Indoles, *Tetrahedron* **2009**, *65*, 3149 – 3154. (Special issue dedicated to Tetrahedron young investigator)
12. Richter, J.M.; Ishihara, Y.; Masuda, T.; Whitefield, B.; Llamas, T.; Pohjakallio, A.; Baran, P.S. Enantiospecific Total Synthesis of the Hapalindoles, Fischerindoles, and Welwitindolinones via a Redox Economic Approach, *J. Am. Chem. Soc.* **2008**, *130*, 17938 – 17954.
13. Su, S.; Seiple, I.B.; Young, I.; Baran, P.S. Total Synthesis of (\pm)-Massadine and Massadine Chloride, *J. Am. Chem. Soc.* **2008**, *130*, 16490 – 16491.
14. DeMartino, M.P.; Chen, K.; Baran, P.S. Intermolecular Enolate Heterocoupling: Scope, Mechanism, and Application, *J. Am. Chem. Soc.* **2008**, *130*, 11546 – 11560.
15. Newhouse, T.; Baran, P.S. Total Synthesis of (\pm)-Psychotrimine, *J. Am. Chem. Soc.* **2008**, *130*, 10886 – 10887.
16. Chen, K.; Richter, J.M.; Baran, P.S. 1,3-Diol Synthesis via Controlled, Radical Mediated C–H Functionalization, *J. Am. Chem. Soc.* **2008**, *130*, 7247 – 7249.
17. Shenvi, R.A.; Guerrero, C.A.; Shi, J.; Li, C.; Baran, P.S. Synthesis of (+)-Cortistatin A, *J. Am. Chem. Soc.* **2008**, *130*, 7241 – 7243.
18. O'Malley, D.P.; Yamaguchi, J.; Young, I.S.; Seiple, I.B.; Baran, P.S. Total Synthesis of (\pm)-Axinellamines A and B, *Angew. Chem. Int. Ed.* **2008**, *47*, 3581 – 3583.
19. Yamaguchi, J.; Seiple, I.B.; Young, I.S.; O'Malley, D.P.; Maue, M.; Baran, P.S. Synthesis of 1,9-Dideoxy-pre-axinellamine, *Angew. Chem. Int. Ed.* **2008**, *47*, 3578 – 3580.

20. Maimone, T.J.; Voica, A.-F.; Baran, P.S. A Concise Approach to Vinigrol, *Angew. Chem. Int. Ed.* **2008**, *47*, 3054 – 3056.
21. Burns, N.Z.; Baran, P.S. On the Origin of the Haouamine Alkaloids, *Angew. Chem. Int. Ed.* **2008**, *47*, 205 – 208.
22. Richter, J.M.; Whitefield, B.; Maimone, T.J.; Lin, D.W.; Castroviejo, P.; Baran, P.S. Scope and Mechanism of the Direct Indole Coupling Adjacent to Carbonyl Compounds: Total Synthesis of Acremoauxin A and Oxazinin 3, *J. Am. Chem. Soc.* **2007**, *129*, 12857 – 12869.
23. Grube, A.; Immel, S.; Baran, P.S.; Köck, M. Massadine Chloride: a Biosynthetic Precursor of Massadine and Stylissadine, *Angew. Chem. Int. Ed.* **2007**, *46*, 6721 – 6724. [Corrigenda: *Angew. Chem. Int. Ed.* **2007**, *46*, 8107.]
24. Köck, M.; Grube, A.; Seiple, I.B.; Baran, P.S. The Pursuit of Palau'amine, *Angew. Chem. Int. Ed.* **2007**, *46*, 6586 – 6594.
25. Maimone, T.J.; Baran, P.S. Modern Synthetic Approaches to Terpenes, *Nature Chem. Bio.* **2007**, *3*, 396 – 407.
26. O'Malley, D.P.; Li, K.; Maue, M.; Zografos, A.L.; Baran, P.S. Total Synthesis of Dimeric Pyrrole-Imidazole Alkaloids: Sceptrin, Ageliferin, Nagelamide E, Oxysceptrin, Nakamuric Acid, and the Axinellamine Carbon Skeleton, *J. Am. Chem. Soc.* **2007**, *129*, 4762 – 4775.
27. Baran, P.S.; Maimone, T.J.; Richter, J.M. Total Synthesis of Marine Natural Products Without Using Protecting Groups, *Nature* **2007**, *446*, 404 – 408.
28. Baran, P.S.; Shenvi, R.A. Total Synthesis of (±)-Chartelline C, *J. Am. Chem. Soc.* **2006**, *128*, 14028 – 14029.
29. Baran, P.S.; DeMartino, M.P. Intermolecular Oxidative Enolate Heterocoupling, *Angew. Chem. Int. Ed.* **2006**, *45*, 7083 – 7086.
30. Baran, P.S.; Hafensteiner, B.D.; Ambhaikar, N.B.; Guerrero, C.A.; Gallagher, J. Enantioselective Total Synthesis of Avrainvillamide and the Stephacidins, *J. Am. Chem. Soc.* **2006**, *128*, 8678 – 8693.
31. Northrop, B.H.; O'Malley, D.P.; Zografos, A.L.; Baran, P.S.; Houk, K. N. Mechanism of the Vinylcyclobutane Rearrangement of Sceptrin to Ageliferin and Nagelamide E, *Angew. Chem. Int. Ed.* **2006**, *45*, 4126 – 4130.
32. Baran, P.S.; Burns, N.Z. Total Synthesis of (±)-Haouamine A, *J. Am. Chem. Soc.* **2006**, *128*, 3908 – 3909.

33. Baran, P.S.; Li, K.; O'Malley, D.P.; Mitsos, C.A. Short, Enantioselective Total Synthesis of Sceptrin and Ageliferin by Programmed Oxaquadricyclane Fragmentation, *Angew. Chem. Int. Ed.* **2006**, *45*, 249 – 252.
34. Baran, P.S.; Shenvi, R.A.; Nguyen, S.A. One-Step Synthesis of 4,5-Disubstituted Pyrimidines Using Commercially Available and Inexpensive Reagents. *Heterocycles* **2006**, *70*, 581 – 586. (Special issue dedicated to Professor Steve Weinreb)
35. Baran, P.S.; Ambhaikar, N.B.; Guerrero, C.A.; Hafensteiner, B.D.; Lin, D.W.; Richter, J.M. Oxidative C–C Bond Formation in Heterocyclic Chemistry, *ARKIVOC* **2006**, 310 – 325 (invited review).
36. Baran, P.S.; Richter, J.M. Enantioselective Total Syntheses of Welwitindolinone A and Fischerindoles I and G, *J. Am. Chem. Soc.* **2005**, *127*, 15394 – 15396.
37. Baran, P.S.; Guerrero, C.A.; Hafensteiner, B.D.; Ambhaikar, N.B. Total Synthesis of Avrainvillamide (CJ-17,665) and Stephacidin B, *Angew. Chem. Int. Ed.* **2005**, *44*, 3892 – 3895.
38. Baran, P.S.; Shenvi, R.A.; Mitsos, C.A. A Remarkable Ring Contraction En Route to the Chartelline Alkaloids, *Angew. Chem. Int. Ed.* **2005**, *44*, 3714 – 3717.
39. Baran, P.S.; Guerrero, C.A.; Ambhaikar, N.B.; Hafensteiner, B.D. Short, Enantioselective Total Synthesis of Stephacidin A, *Angew. Chem. Int. Ed.* **2005**, *44*, 606 – 609.
40. Baran, P.S.; Richter, J.M.; Lin, D.W. Direct Coupling of Pyrroles with Carbonyl Compounds: Short Enantioselective Synthesis of (*S*)-Ketorolac, *Angew. Chem. Int. Ed.* **2005**, *44*, 609 – 612.
41. Baran, P.S.; Richter, J.M. Direct Coupling of Indoles with Carbonyl Compounds: Short, Enantioselective, Gram-Scale Synthetic Entry into the Hapalindole and Fischerindole Alkaloid Families, *J. Am. Chem. Soc.* **2004**, *126*, 7450 – 7451.
42. Baran, P.S.; O'Malley, D.P.; Zografos, A.L. Sceptrin as a Potential Biosynthetic Precursor to Complex Pyrrole-Imidazole Alkaloids: The Total Synthesis of Ageliferin, *Angew. Chem. Int. Ed.* **2004**, *43*, 2674 – 2677.
43. Baran, P.S.; Zografos, A.L.; O'Malley, D.P. Short Total Synthesis of Sceptrin, *J. Am. Chem. Soc.* **2004**, *126*, 3726 – 3727.
44. Baran, P.S.; Guerrero, C.A.; Corey, E.J. The First Method for Protection-Deprotection of the Indole 2,3- π Bond, *Org. Lett.* **2003**, *5*, 1999 – 2001.
45. Baran, P.S.; Guerrero, C.A.; Corey, E.J. A Short, Enantioselective Total Synthesis of Okaramine N, *J. Am. Chem. Soc.* **2003**, *125*, 5628 – 5629.

46. Baran, P.S.; Corey, E.J. A Short Synthetic Route to (+)-Austamide, (+)-Deoxyaustamide, and (+)-Deoxyisoaustamide from a Common Precursor by a Novel Palladium-Mediated Indole to Dihydroindoloazocine Cyclization, *J. Am. Chem. Soc.* **2002**, *124*, 7904 – 7905.
47. Nicolaou, K.C.; Baran, P.S. The CP Molecules Labyrinth: A Paradigm of How Endeavors in Total Synthesis Lead to Discoveries and Inventions in Organic Synthesis, *Angew Chem. Int. Ed.* **2002**, *41*, 2678 – 2720.
48. Nicolaou, K.C.; Montagnon, T.; Baran, P.S. HIO₃ and I₂O₅: Mild and Selective Alternatives Reagents to IBX for the Dehydrogenation of Aldehydes and Ketones, *Angew. Chem. Int. Ed.* **2002**, *41*, 1386. [Corrigendum/Warning: *Angew. Chem. Int. Ed.* **2003**, *42*, 3981]
49. Nicolaou, K.C.; Montagnon, T.; Baran, P.S. Modulation of the Reactivity Profile of IBX by Ligand Complexation: Ambient Temperature Dehydrogenation of Aldehydes and Ketones to α,β -Unsaturated Carbonyl Compounds, *Angew. Chem. Int. Ed.* **2002**, *41*, 993.
50. Nicolaou, K.C.; Jung, J.; Yoon, W.H.; Fong, K.C.; Choi, H.S.; He, Y.; Zhong, Y.-L.; Baran, P.S. Total Synthesis of the CP-Molecules (CP-263,114 and CP-225,917, Phomoidrides B and A). Part 1. Racemic and Asymmetric Synthesis of Bicyclo(4.3.1) Key Building Blocks, *J. Am. Chem. Soc.* **2002**, *124*, 2183 – 2189.
51. Nicolaou, K.C.; Baran, P.S.; Zhong, Y.-L.; Fong, K.C.; Choi, H.S. Total Synthesis of the CP-Molecules (CP-263,114 and CP-225,917, Phomoidrides B and A). Part 2. Model Studies for the Construction of Key Structural Elements and First Generation Strategy, *J. Am. Chem. Soc.* **2002**, *124*, 2190 – 2201.
52. Nicolaou, K.C.; Zhong, Y.-L.; Baran, P.S.; Jung, J.; Choi, H.S.; Yoon, W.H. Total Synthesis of the CP-Molecules (CP-263,114 and CP-225,917, Phomoidrides B and A). Part 3. Completion and Synthesis of Advanced Analogs, *J. Am. Chem. Soc.* **2002**, *124*, 2202 – 2211.
53. Nicolaou, K.C.; Baran, P.S.; Zhong, Y.-L.; Sugita, K. Iodine(V)-Reagents in Organic Synthesis. Part 1. Synthesis of Polycyclic Heterocycles via DMP-Mediated Cascade Cyclization: Generality, Scope and Mechanism of the Reaction, *J. Am. Chem. Soc.* **2002**, *124*, 2212 – 2220.
54. Nicolaou, K.C.; Sugita, K.; Baran, P.S.; Zhong, Y.-L. Iodine (V)-Reagents in Organic Synthesis. Part 2. Access to Complex Molecular Architectures via DMP-Generated *o*-Azaquinones, *J. Am. Chem. Soc.* **2002**, *124*, 2221 – 2232.
55. Nicolaou, K.C.; Baran, P.S.; Zhong, Y.-L.; Barluenga, S.; Hunt, K.W.; Kranich, R.; Vega, J.A. Iodine(V) Reagents in Organic Synthesis. Part 3. New Routes to Heterocyclic Compounds via IBX-Mediated Cyclizations: Generality, Scope, and Mechanism, *J. Am. Chem. Soc.* **2002**, *124*, 2233 – 2244.

56. Nicolaou, K.C.; Montagnon, T.; Baran, P.S.; Zhong, Y.-L. Iodine(V)-Reagents in Organic Synthesis. Part 4. IBX as a Chemospecific Tool for SET-Based Oxidation Processes, *J. Am. Chem. Soc.* **2002**, *124*, 2245 – 2258.
57. Nicolaou, K.C.; Montagnon, T.; Ulven, T.; Baran, P.S.; Zhong, Y.-L.; Sarabla, F. Novel Chemistry of α -Sulfonated Ketones: Applications to the Solution and Solid Phase Synthesis of Privileged Heterocycle and Eneidyne Libraries, *J. Am. Chem. Soc.* **2002**, *124*, 5718 – 5728.
58. MacMahon, S.; Fong, R.; Baran, P.S.; Safonov, I.; Wilson, S.R.; Schuster, D.I. Synthetic Approaches to a Variety of Covalently Linked Porphyrin-Fullerene Hybrids *J. Org. Chem.* **2001**, *66*, 5449 – 5455.
59. Nicolaou, K.C.; Baran, P.S.; Zhong, Y.-L. Selective Oxidation at Carbon Adjacent to Aromatic Systems with IBX, *J. Am. Chem. Soc.* **2001**, *123*, 3183 – 3185.
60. Nicolaou, K.C.; Zhong, Y.-L.; Baran, P.S.; Sugita, K. Rapid Access to Molecular Complexity via *o*-Azaquinones, *Angew. Chem. Int. Ed.* **2001**, *40*, 2145.
61. Nicolaou, K.C.; Sugita, K.; Baran, P.S.; Zhong, Y.-L. New Synthetic Technology for the Construction of N-Containing Quinones and Derivatives Thereof: Total Synthesis of Epoxyquinomycin B, *Angew. Chem. Int. Ed.* **2001**, *40*, 207 – 210.
62. Nicolaou, K.C.; Baran, P.S.; Kranich, R.; Zhong, Y.-L.; Sugita, K.; Zou, N.; Mechanistic Studies of Periodinane-Mediated Reactions of Anilides and Related Systems, *Angew. Chem. Int. Ed.* **2001**, *40*, 202 – 206.
63. Nicolaou, K.C.; Baran, P.S.; Zhong, Y.-L. Novel Solution and Solid Phase Chemistry of α -Sulfonated Ketones Applicable to Combinatorial Chemistry, *J. Am. Chem. Soc.* **2000**, *122*, 10246 – 10248.
64. Nicolaou, K.C.; Zhong, Y.-L.; Baran, P.S. A New One-step Method for the Oxidation of Alcohols and Carbonyl Compounds to α,β -Unsaturated Systems, *J. Am. Chem. Soc.* **2000**, *122*, 7596 – 7597.
65. Nicolaou, K.C.; Baran, P.S.; Zhong, Y.-L.; Vega, J.A. Novel IBX-Mediated Processes for the Synthesis of Amino Sugars and Libraries Thereof, *Angew. Chem. Int. Ed.* **2000**, *39*, 2525 – 2529.
66. Nicolaou, K.C.; Jung, J.-K.; Yoon, W.-Y.; He, Y.; Zhong, Y.-L.; Baran, P.S. The Absolute Configuration and Asymmetric Total Synthesis of the CP Molecules (CP-263, 114 and CP-225, 917, Phomoidres B and A), *Angew. Chem. Int. Ed.* **2000**, *39*, 1829 – 1832.
67. Nicolaou, K.C.; Vassilikogiannakis, G.; Kranich, R.; Baran, P.S.; Zhong, Y.-L.; Natarajan, S. New Synthetic Technology for the Mild and Selective Homologation of Hindered Aldehydes in the Presence of Ketones, *Org. Lett.* **2000**, *2*, 1895 – 1898.

68. Nicolaou, K.C.; Vassilikogiannakis, G.; Simonsen, K.B.; Baran, P.S.; Zhong, Y.-L.; Vidali, V.P.; Pitsinos, E.N.; Couladouros, E.A. Biomimetic Total Synthesis of Bisorbicillinol, Bisorbibutenolide, Trichodimerol and Designed Analogs of the Bisorbicillinoids, *J. Am. Chem. Soc.* **2000**, *122*, 3830 – 3838.
69. Baran, P.S.; Khan, A.U.; Schuster, D.I. Some Photophysical Properties of Nanotubes, *Fullerene Sci. Tech.* **1999**, *7*, 921 – 925.
70. Nicolaou, K.C.; Zhong, Y.-L.; Baran, P.S. New Synthetic Technology for the Rapid Construction of Novel Heterocycles- Part 1: The Reaction of Dess – Martin Periodinane with Anilides and Related Compounds, *Angew. Chem. Int. Ed.* **2000**, *39*, 622 – 625.
71. Nicolaou, K.C.; Zhong, Y.-L.; Baran, P.S. New Synthetic Technology for the Rapid Construction of Novel Heterocycles- Part2: The Reaction of IBX with Anilides and Related Compounds, *Angew. Chem. Int. Ed.* **2000**, *39*, 625 – 628.
72. Nicolaou, K.C.; Vourloumis, D.; Winssinger, N.; Baran, P.S. The Art and Science of Total Synthesis at the Dawn of the Twenty-First Century, *Angew. Chem. Int. Ed.* **2000**, *39*, 44 – 122.
73. Nicolaou, K.C.; Jautelat, R.; Vassilikogiannakis, G.; Baran, P.S.; Simonsen, K. Studies Towards the Synthesis of Trichodimerol, *Chem. Eur. J.* **1999**, *5*, 3651 – 3665.
74. Nicolaou, K.C.; Simonsen, K.S.; Vassilikogiannakis, G.; Baran, P.S.; Vidali, V.P.; Pitsinos, E.N.; Couladouros, E.A. Biomimetic Explorations Towards the Bisorbicillinoids: Total Synthesis of Bisorbicillinol, Bisorbibutenolide, and Trichodimerol, *Angew. Chem. Int. Ed.* **1999**, *38*, 3555 – 3559.
75. Nicolaou, K.C.; Baran, P.S.; Zhong, Y.-L.; Choi, H.-S.; Fong, K.C.; He, Y.; Yoon, W.H. New Synthetic Technology for the Synthesis of Hindered α -Diazo Ketones, *Org. Lett.* **1999**, *6*, 863 – 866.
76. Nicolaou, K.C.; Baran, P.S.; Zhong, Y.-L.; Choi, H.-S.; Yoon, W.H.; He, Y.; Fong, K.C. Total Synthesis of the CP Molecules CP-263,114 and CP-225,917 - Part 1: Synthesis of Key Intermediates and Intelligence Gathering, *Angew. Chem. Int. Ed.* **1999**, *38*, 1669-1675.
77. Nicolaou, K.C.; Baran, P.S.; Zhong, Y.-L.; Fong, K.C.; He, Y.; Yoon, W.H.; Choi, H.S. Total Synthesis of the CP Molecules CP-263,114 and CP-225, 917 - Part 2: Evolution of the Final Strategy, *Angew. Chem. Int. Ed.* **1999**, *38*, 1676 – 1678.
78. Nicolaou, K.C.; He, Y.; Fong, K.C.; Yoon, W.H.; Choi, H.-S.; Zhong, Y.-L.; Baran, P.S. Novel Strategies to Construct the γ -Hydroxy Lactone Moiety of the CP Molecules, Synthesis of the CP-225,917 Core Skeleton, *Org. Lett.* **1999**, *1*, 63 – 66.
79. Nicolaou, K.C.; Baran, P.S.; Jautelat, R.; He, Y.; Fong, K.C.; Choi, H.-S.; Yoon, W.H.; Zhong, Y.-L. A Novel Route to the Fused Maleic Anhydride Moiety of CP Molecules, *Angew. Chem. Int. Ed.* **1999**, *38*, 549 – 552.

80. Schuster, D.I.; Baran, P.S.; Hatch, R.K.; Khan, A.U.; Wilson, S.R. The Role of Singlet Oxygen in the Photochemical Formation of C₆₀O, *Chem. Commun.* (Cambridge) **1998**, 22, 2493 – 2494.
81. Safonov, I.G.; Baran, P.S.; Schuster, D.I. Synthesis and Photophysics of a Novel Porphyrin-C₆₀ Hybrid, *Tetrahedron Lett.* **1997**, 38, 8133 – 8136.
82. Baran, P.S.; Monaco, R.R.; Khan, A.U.; Schuster, D.I.; Wilson, S.R. Synthesis and Cation-mediated Electronic Interactions of Two Novel Classes of Porphyrin-fullerene Hybrids, *J. Am. Chem. Soc.* **1997**, 119, 8363 – 8364.
83. Baran, P.S.; Monaco, R.R.; Khan, A.U.; Schuster, D.I.; Soulas, P.; Echegoyen, L. Synthesis and Cation-mediated Electronic Interactions of Two Novel Classes of Porphyrin-fullerene Hybrids. *Proc. - Electrochem. Soc.* **1997**, 97 – 14. (Recent Advances in the Chemistry and Physics of Fullerenes and Related Materials), 25 – 36.

Patents

1. Nicolaou, K.C.; Zhong, Y.-L.; Baran, P.S. Formation of Heterocycles Using O-Iodoxy Benzoic Acid (IBX), *PCT Int. Appl.* WO 01/14348 2001, 39pp.
2. Baran, P.S.; O'Malley, D.P.; Zografos, A.L. *Synthesis of (±)-Sceptrin and Ageliferin*, Provisional U.S. Patent Filed.
3. Chen, K.; Richter, J. M.; Baran, P. S. 1,3-Diol Synthesis via Controlled, Radical Mediated C–H Functionalization, Provisional U.S. Patent Filed.
4. Shenvi, R. A.; Guerrero, C. A.; Shi, J.; Li, C.; Baran, P. S. Synthesis of (+)-Cortistatin A, Provisional U.S. Patent Filed.

Miscellaneous Reviews

1. Baran, P. S. Dead Ends and Detours. Direct Ways to Successful Total Synthesis. By Miguel A. Sierra and María C. de la Torre. *Angew. Chem. Int. Ed.* **2005**, 44, 3338 – 3339. (Book Review)

Book Forewords

1. Li, J. J. *From Lipitor to Viagra: Stories Behind the Drugs We Use*, Oxford Press, **2006**
2. Li, J. J. *Name Reactions*, Springer, 3rd edition, **2006**

Professional Activities

1. NIH Study Section Member, SBC-B, 2008 – 2012
2. NIH Study Section Member, CMLD Special emphasis panel, July 2008

3. NIH Study Section Member, ad-hoc, SBC-B, June 2005
4. Scripps Graduate Student Admissions Committee, 2004 – Present
5. Discussion Chair, GRC (Heterocycles), July 2006
6. Co-Chair, ACS Western Regional Meeting, 2007

Consulting

1. Bristol-Myers Squibb (exclusive, all sites), 2005 – present
2. DuPont, 2007 – Present
3. TetraPhase (Scientific Advisory Board), 2007 – present