

**Curriculum Vitae**  
***Kyriacos C. Nicolaou***

- Education:*** Ph.D. 1972, University College, University of London, England with Professors F. Sondheimer and P.J. Garratt  
B.Sc. 1969 (Honors degree, First Class), Bedford College, University of London, England
- Postdoctoral:*** 1973–1976 - Harvard University, Cambridge, MA  
Research Associate with Professor E.J. Corey  
1972–1973 - Columbia University, New York, NY  
Research Associate with Professor T.J. Katz
- Appointments:*** **2013–Present** – Rice University, Houston, TX  
Department of Chemistry  
BioScience Research Collaborative  
Harry C. and Olga K. Wiess Professor of Chemistry
- 2012–Present** – Visiting Professor, Chongqing University, China
- 1989–2013 - Department of Chemistry  
The Scripps Research Institute, La Jolla, CA  
1996–2013 - Aline W. and L. S. Skaggs Professor of Chemical Biology  
1989–Oct. 2012 - Department Chairman  
1989–Oct. 2012 - Darlene Shiley Chair in Chemistry
- 1989–2013 - University of California/San Diego, La Jolla, CA  
2006–present - Distinguished Professor of Chemistry  
1989–2005 - Professor of Chemistry
- 2004–2010 - Chemical Synthesis Laboratory, Biopolis, A\*Star, Singapore, Program Director
- 1976–1989 - University of Pennsylvania, Philadelphia, PA  
1988–1989 - Rhodes-Thompson Professor of Chemistry  
1981–1988 - Professor of Chemistry  
1980–1981 - Associate Professor of Chemistry  
1976–1980 - Assistant Professor of Chemistry

## Selected Professional Honors

- A.P. Sloan Fellowship, USA, 1979–1983
- Camille and Henry Dreyfus Teacher–Scholar Award, USA, 1980–1984
- J.S. Guggenheim Fellow, USA, 1984
- ACS, Philadelphia Section Award, USA, 1983
- ACS Arthur C. Cope Scholar Award, USA, 1987
- Alexander von Humboldt Foundation US Senior Scientist Award, Germany, 1987–1988
- Japan Society for the Promotion of Science Award, 1988
- Alan R. Day Award, Philadelphia Organic Chemist's Club, USA, 1993
- ACS Award for Creative Work in Synthetic Organic Chemistry, USA, 1993
- Pfizer Research Award for Synthetic Organic Chemistry, USA, 1993–1994
- Paul Janssen Prize for Creativity in Organic Synthesis, Belgium, 1994
- Alexander the Great Award, Hellenic Cultural Society of San Diego, USA, 1994
- Karavas Prize, Cyprus, 1994
- Rhone-Poulenc Medal of the Royal Society of Chemistry (London), UK, 1995
- ACS (New York Section) William H. Nichols Medal, USA, 1996
- ACS Ernest Guenther Award in the Chemistry of Natural Products, USA, 1996
- Chemical Pioneer Award, American Institute of Chemists, USA, 1996
- Inhoffen Medal of the Gesellschaft für Biotechnologische Forschung mbH (GBF) and the Technical University of Braunschweig, Germany, 1996
- ACS Linus Pauling Medal, USA, 1996
- Cliff S. Hamilton Award in Organic Chemistry, University of Nebraska, Lincoln, USA, 1997
- ACS (San Diego Section) Distinguished Scientist Award, USA, 1997
- Decoration of the Order of the Commander of Honor Medal (bestowed by the President of Greece), 1998
- ACS (Northeastern Section) Gustavus John Esselen Award for Chemistry in the Public Interest, USA, 1998
- Press Club Headliner Award, San Diego Press Club, USA, 1998
- Yamada Prize, Japan, 1999
- Aspirin Prize for Solidarity through Chemistry, Spain, 1999
- Max Tishler Prize, Harvard University, USA, 2000
- Paul Karrer Gold Medal, Switzerland, 2000
- Original Member, Highly Cited Researcher Database, Institute for Scientific Information, Philadelphia, PA, USA, 2001
- Royal Society of Chemistry Centenary Medal, UK, 2001–2002
- Ernst Schering Prize, Ernst Schering Research Foundation, Germany, 2001
- Nagoya Gold Medal of Organic Chemistry, Nagoya University, Japan, 2001
- Kitasato Institute Medal, The Kitasato Institute, Minato-ku, Japan, 2001
- Greek American Scientists, Engineers, and High Tech Entrepreneurs Award, USA, 2001
- Tetrahedron Prize for Creativity in Organic Chemistry, USA, 2002
- ACS Nobel Laureate Signature Award for Graduate Education in Chemistry, USA, 2003
- Aristeio Bodossaki Prize, Bodossaki Foundation, Greece, 2004
- ACS Arthur C. Cope Award, USA, 2005
- ACS (Auburn Section) G.M. Kosolapoff Award, Auburn University, USA, 2006
- Burckhardt-Helferich Prize, Germany, 2006
- ISHC Senior Award in Heterocyclic Chemistry, International, 2007
- ACS Western Regional Meeting Award of Excellence, USA, 2007
- August-Wilhelm-von-Hofmann-Denk Münze Award, Germany, 2008
- Charles Chandler Medal, Columbia University, USA, 2008
- San Diego BioPharma Achievement Award, USA, 2009
- Lampousa Lifetime Achievement Award (Cypriot American Association), USA, 2009

- Science Award, Ministry of Education and Culture, Cyprus, 2010
- Benjamin Franklin Medal in Chemistry, The Franklin Institute, USA, 2011
- ACS (New Jersey Section) Creativity in Molecular Design and Synthesis Award, USA, 2012
- Rolf Sammet Guest Professorship, Frankfurt, Germany, 2014
- Einstein Professorship, Chinese Academy of Sciences, Beijing, China, 2014

## Membership In Academies, Societies and Professional Bodies

### **By Application**

American Chemical Society  
 Chemical Society of Japanese  
 European Chemical Society  
 German Chemical Society

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### **By Invitation/Election**

Fellow of the New York Academy of Sciences, USA, 1987  
 Fellow of the American Academy of Arts and Sciences, USA, 1993  
 Honorary Member, Pharmaceutical Society of Japan, 1996  
 Member of the National Academy of Sciences, USA, 1996  
 Fellow, American Association for the Advancement of Science, USA, 1999  
 Honorary Professorship, Shanghai Institute of Organic Chemistry, 1999  
 Corresponding Member, Academy of Athens, Greece, 2001  
 Honorary Fellowship, Chemical Research Society of India, India, 2004  
 Fellowship, World Innovation Foundation, 2004  
 Honorary Fellowship, Indian Academy of Sciences, 2007  
 Sigma Xi Scientific Research Society, USA, 2009  
 Member, German Academy of Sciences Leopoldina, Germany, 2009  
 Honorary Membership, Israel Chemical Society, Israel, 2009  
 Member, Honorable Order of Kentucky Colonels, USA, 2009  
 Honorary Life Fellow, Singapore National Institute of Chemistry, USA, 2011  
 Member, American Philosophical Society, USA, 2011  
 Foreign Member of the Royal Society of London, UK, 2013  
 The Academy of Medicine, Engineering & Science of Texas, USA, 2013

## Honorary Degrees

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| • Honorary M.A. ( <i>honoris causa</i> )  | University of Pennsylvania, 1980                |
| • D.Sc. degree                            | University College, University of London, 1994  |
| • Honorary Ph.D. ( <i>honoris causa</i> ) | University of Athens, 1995                      |
| • Honorary Ph.D. ( <i>honoris causa</i> ) | University of Thessaloniki, Greece, 1996        |
| • Honorary Ph.D. ( <i>honoris causa</i> ) | University of Cyprus, Nicosia, Cyprus, 1997     |
| • Honorary Ph.D. ( <i>honoris causa</i> ) | Universidad de Alcalá, Madrid, Spain, 1998      |
| • Honorary Ph.D. ( <i>honoris causa</i> ) | University of Crete, Greece, 1998               |
| • Honorary Ph.D. ( <i>honoris causa</i> ) | Agricultural University of Athens, Greece, 2000 |
| • Honorary Ph.D. ( <i>honoris causa</i> ) | University of Patras, Greece, 2002              |
| • Honorary Ph.D. ( <i>honoris causa</i> ) | University of Rome “La Sapienza”, Italy 2003    |

## Selected Professional Activities

<u>Position</u>	<u>Years</u>	<u>Journal</u>
Co-Founder; Co-Editor-in-Chief (w/ S.L. Schreiber)	1994–pres.	<i>Chemistry and Biology</i>
Board of Consulting Editors	1992–pres.	<i>Tetrahedron</i>
Board of Consulting Editors	1992–pres.	<i>Tetrahedron Letters</i>
Board of Consulting Editors	1992–pres.	<i>Bioorganic and Medicinal Chemistry Letters</i>
Board of Consulting Editors	1993–pres.	<i>Bioorganic and Medicinal Chemistry</i>
Editorial Advisory Board	1990–2001	<i>Synlett</i>
Editorial Advisory Board	1990–2001	<i>Synthesis</i>
Editorial Advisory Board	1998–pres.	<i>Current Organic Chemistry</i>
Editorial Advisory Board	1998–pres.	<i>Organic Letters</i>
Editorial Advisory Board	2000–2010	<i>ChemBioChem</i>
Editorial Advisory Board	2001–pres.	<i>Current Cancer Drug Targets</i>
Editorial Advisory Board	2004–pres.	<i>Chemistry &amp; Biodiversity</i>
Editorial Advisory Board	2011–pres.	<i>ChemistryOpen</i>
Editorial Advisory Board	2005–pres.	<i>Bulletin of the Chemical Society of Japan</i>
Editorial Board	1978–1988	<i>Prostaglandins Leukotrienes and Medicine</i>
Editorial Board	1992–1995	<i>Accounts of Chemical Research</i>
Editorial Board	1993–1999	<i>Carbohydrate Letters</i>
Editorial Board	1994–pres.	<i>Chemistry – A European Journal</i>
Editorial Board	1994–2000	<i>Perspectives in Drug Discovery and Design</i>
Editorial Board	1995–1997; 1999–2001; 2005–2007	<i>Indian Journal of Chemistry Section-B</i>
Editorial Board	1996–1997	<i>Index Chemicus</i>
Editorial Board	1996–1998	<i>European Chemistry Chronicle</i>
Editorial Board	1997–2005	<i>Current Opinion in Chemical Biology</i>
Editorial Board	1998–2002	<i>IDrug</i>
Editorial Board	2007–2008	<i>International Journal of Oncology</i>
Editorial Board	2004–pres.	<i>Topics in Heterocyclic Chemistry (Series)</i>
International Advisory Board	1994–2013	<i>Angewandte Chemie</i>
International Advisory Board	1994–1997	<i>Contemporary Organic Synthesis</i>
International Advisory Board	1997–2002	<i>Journal of the Chemical Society, Perkins I</i>
International Advisory Board	2003–2006	<i>Organic and Biomolecular Chemistry</i>
International Advisory Board	2003–2009	<i>QSAR &amp; Combinatorial Science</i>
International Advisory Board	2006–pres.	<i>Chemistry – An Asian Journal</i>
International Editorial Board	2010–pres.	<i>Israel Journal of Chemistry</i>
Regional Advisory Board	1989–1997.	<i>J. Chem. Soc., Chemical Communications</i>
Regional Advisory Board	1991–1996	<i>J. Chemical Society, Perkin Transactions I</i>

## Recent Named Lectureships and Symposia

### 2013

- ◆ Invited Speaker, Royal Swedish Academy of Sciences, Stockholm, Sweden
- ◆ New Fellow and Foreign Member Seminar, Royal Society of Chemistry, London, UK
- ◆ Invited Lecturer, ICAA International Symposium, Shanghai, China
- ◆ Astellas Lectures, Tokyo/Takahagi/Tsukuba, Japan
- ◆ Plenary Lecturer, National Autonomous University of Mexico

### 2012

- ◆ Turner Lecturer, Rice University, Houston, TX
- ◆ Association of Greek Chemist (A.G.C.), International Year of Chemistry Lecturer, Parnassos, Athens, Greece

### 2011

- ◆ 19<sup>th</sup> Lilly Foundation Scientific Symposium, Madrid, Spain
- ◆ 2011 Benjamin Franklin Medal Chemistry Symposium, University of Pennsylvania, Philadelphia, PA (upon receipt of the medal)
- ◆ Co-Chair and Speaker, International Symposium on Medicinal Chemistry (ASMC11), St. Petersburg, Russia
- ◆ 2011 Michael Patrick Cava Lecturer, University of Alabama, Tuscaloosa, AL
- ◆ International Year of Chemistry Discourse Lecturer, Royal Irish Academy, Dublin, Ireland

### 2010

- ◆ Invited Speaker, Danish Academy for Technical Sciences (ATV), Frederiksberg, Denmark
- ◆ Invited Speaker, ACS Presidential Symposium Educating Chemists with the Skills Needed to Compete in the Global Economy, San Francisco, CA
- ◆ Plenary & Opening Lecturer, XX National Meeting on Medicinal Chemistry, Padova, Italy
- ◆ Invited Speaker, University of Montreal, Canada (Stephen Hanessian's 75th Birthday)
- ◆ Distinguished Lecturer, Institute of Cancer Research (University of London), London, UK
- ◆ GlaxoSmithKline Philadelphia Area Joint Process & Medicinal Chemistry Symposium, PA
- ◆ Inaugural "Pattenden Lecturer", New Horizons in Natural Product Chemistry, International Symposium, University of Nottingham, UK
- ◆ Invited Speaker, Cooperative Catalysis Symposium, Pacificchem 2010

### 2009

- ◆ Mitsui Chemicals International Symposium, Japan
- ◆ Asia Invited Lecture Tour (Beijing, Shanghai, Shenzhen, Hong Kong)
- ◆ Keynote Lecture, 6th Cyprus Pharmaceutical Conference, Cyprus
- ◆ Invited Speaker, University of Cyprus, Cyprus
- ◆ Ernest E. Campagine Lecture in Chemistry, Indiana University, Bloomington, IN
- ◆ Christmas Seminar University of Heidelberg, Germany

### 2008

- ◆ ESF-COST Lecturer, Maratea, Italy
- ◆ 2008 Criegee Lecturer, University of Karlsruhe, Germany
- ◆ Behringer Simon Lecturer 2008, ETH Zurich, Switzerland
- ◆ Principle Speaker, GCOE International Symposium, Waseda University, Japan
- ◆ Plenary Lecturer, Centennial Symposium, 236<sup>th</sup> ACS National Meeting, Philadelphia, PA
- ◆ Opening Lecture, 2<sup>nd</sup> EuChems Chemistry Congress, Torino, Italy
- ◆ Plenary Lecturer, 43rd Meeting of the Mexican Chemical Society

- ◆ Chandler Medal Lecturer 2008, Columbia University, New York, NY

#### 2007

- ◆ Bodossaki Public Lecture, Bodossaki Symposium on Science and Nature, Athens, Greece
- ◆ Joshua Jortner Distinguished Lecturers in Chemistry, Tel Aviv University, Israel
- ◆ ISHC Senior Award Lecturer in Heterocyclic Chemistry 2007, ICHC21 Conference, Sydney, Australia
- ◆ Plenary Lecturer, 8<sup>th</sup> Tetrahedron Symposium, Berlin, Germany
- ◆ Plenary Lecturer, 12<sup>th</sup> Asian Chemical Congress, Kuala Lumpur, Malaysia
- ◆ 2007 Marvel Lecturer, University of Illinois at Urbana, Champaign, Illinois
- ◆ Featured After-Dinner Speaker, 2007 Princeton ACS Fall Organic Symposium
- ◆ Kick-Off Lecturer, 41<sup>st</sup> Western Regional ACS Meeting, San Diego, CA
- ◆ Keynote Speaker, GVK Bio-Wyeth Symposium, Hyderabad, India
- ◆ Keynote Speaker, Visualizing the Future of Chemistry Education, Fullerton, CA

#### 2006

- ◆ ACS Award Recipient-Speaker, Auburn Section (G.M. Kosolapoff Award), Auburn University, Auburn, AL
- ◆ Annual Distinguished Lecturer, University of Louisville, KY
- ◆ Procter and Gamble Lecturer 2006, University of Arizona
- ◆ Plenary Lecture. "Tomorrow...Towards a Chosen Chemistry" Symposium, CPE, Lyon France
- ◆ H. Smith Broadbent Lecturer in Organic Chemistry, 2006–2007, Brigham Young University, Provo, UT
- ◆ Array Biopharma Distinguished Lecturer, Colorado State University, Denver, CO
- ◆ Plenary Lecturer - VI International Symposium "Chemical Research at the Border Region," Centro de Graduados e Investigacion en Quimica of Inst. Tech., Tijuana, Mexico

## K.C. Nicolaou – Patents

1. *Pyridoza Prostacyclin Analogues and N-Oxides Thereof*, K.C. Nicolaou, W.E. Barnette, R.L. Magolda; Serial No. 06/20,543; U.S. Patent No. 4,256,883 issued Mar. 17, 1981.
2. *Method for Preparing Cyclic Ethers and Thioethers Including Oxygen Isomers and Sulfur Analogs of Prostacyclin*, K.C. Nicolaou, W.E. Barnette, R.L. Magolda, Z. Lysenko; Serial No. 05/886,143; U.S. Patent No. 4,258,199 issued Mar. 24, 1981.
3. *Carbocyclic Thromboxane A<sub>2</sub> Analogues*, K.C. Nicolaou, R.L. Magolda, D.A. Claremon; Serial No. 06/87,678; U.S. Patent No. 4,260,806 issued Apr. 7, 1981.
4. *Pharmaceutically Active 6,9-Thiaprostacyclin Analogs and Derivatives Thereof*, K.C. Nicolaou, W.E. Barnette, R.L. Magolda; Serial No. 05/886,141; U.S. Patent No. 4,291,166 issued Sept. 22, 1981.
5. *Thromboxane A<sub>2</sub> Analogues*, K.C. Nicolaou, R.L. Magolda; Serial No. 06/19,932; U.S. Patent No. 4,308,396 issued Dec. 29, 1981.
6. *Bicyclo Aldehyde and Process for Preparation*, K.C. Nicolaou, R.L. Magolda, D.A. Claremon; Serial No. 06/194,399; U.S. Patent No. 4,317,935 issued Mar. 2, 1982.
7. *Method of Preparing Bicyclo(3.1.1)Hept-2-One*, K.C. Nicolaou, R.L. Magolda, D.A. Claremon; Serial No. 06/289,965; U.S. Patent No. 4,429,166 issued Jan. 31, 1984.
8. *Leukotriene Analogues*, K.C. Nicolaou, N.A. Petasis, S.P. Seitz; Serial No. 06/325,553; U.S. Patent No. 4,442,099 issued Apr. 10, 1984.
9. *Leukotriene Analogues*, K.C. Nicolaou, N.A. Petasis, S.P. Seitz; Serial No. 06/528,733; U.S. Patent No. 4,567,290 issued Jan. 28, 1986.
10. *Alkanoarachidonic Acids*, K.C. Nicolaou, N.A. Petasis, W.S. Li, T. Ladduwahetty, J.L. Randall, S.E. Webber, P.E. Hernandez; Serial No. 06/655,196; U.S. Patent No. 4,759,880 issued July 26, 1988.
11. *Method of Synthesizing Leukotriene B<sub>4</sub> and Derivatives Thereof*, Y. Abe, K.C. Nicolaou; Serial No. 06/165,521; U.S. Patent No. 4,873,024 issued Oct. 10, 1989.
12. *Glycolipids*, K.C. Nicolaou, T.J. Caulfield; Serial No. /07242,723; U.S. Patent No. 4,977,286 issued Dec. 11, 1990.
13. *Sesquiterpene Epoxides and Process for Their Preparation*, J.R. Aldrich, J.E. Oliver, K.C. Nicolaou, B.E. Marron; Serial No. 07/168,047; U.S. Patent No. 4,981,981 issued Jan. 1, 1991.
14. *Cyclic Conjugated Ene-dienes*, K.C. Nicolaou, G. Zuccarello, Y. Ogawa; Serial No. 07/214,019; U.S. Patent No. 5,097,062 issued Mar. 17, 1992.
15. *Method of Synthesizing Leukotriene B<sub>4</sub> and Derivatives Thereof*, Y. Abe, K.C. Nicolaou; Serial No. 07/388,990; U.S. Patent No. 5,110,949 issued May 5, 1992.

16. *Golfomycin Derivatives: Fused Ring Cyclodecadiyne Derivatives Having DNA-Cleaving Properties and Antitumor Activity*, G. Skokotas, K.C. Nicolaou; Serial No. 07/561,964; U.S. Patent No. 5,136,099 issued Aug. 4, 1992.
17. *Ten-Membered Ring Ene-diyneols and Ene-diyneones Having DNA Cleaving Properties*, K.C. Nicolaou, E. Sorensen, C.-K Hwang, R. Discordia, R.G. Bergman, R.E. Minto; Serial No. 07/788,161; U.S. Patent No. 5,183,942 issued Feb. 2, 1993.
18. *Phosphene Oxide-Terminated Allene-Ene-Yne DNA Cleaving, Antitumor and Antibiotic Molecules*, P.E. Maligres, K.C. Nicolaou; Serial No. 07/561,455; U.S. Patent No. 5,229,375 issued Jul. 20, 1993.
19. *Propargylic and Allenic Sulfones*, K.C. Nicolaou, G. Zuccarello, S. Skokotas, P. Maligres; Serial No. 07/470,814; U.S. Patent No. 5,237,101 issued Aug. 17, 1993.
20. *Cyclic Conjugated Ene-diyne*, K.C. Nicolaou, G. Zuccarello, Y. Ogawa; Serial No. 07/803,618; U.S. Patent No. 5,239,118 issued Aug. 24, 1993.
21. *Analogues of Calicheamicin  $\gamma_1^I$ , Method of Making and Using the Same*, K.C. Nicolaou, A.L. Smith, C.-K. Hwang, E. Pitsinos; Serial No. 07/915,071, U.S. Patent No. 5,264,586 issued Nov. 23, 1993.
22. *Intermediates for Preparation of Taxols*, K.C. Nicolaou, C.-K. Hwang, E.J. Sorenson, J.-J. Liu; Serial No. 07/902,390; U.S. Patent No. 5,274,137 issued Dec. 28, 1993.
23. *Designed Quinone- and Hydroquinone-Containing Cyclic Ene-diyneols and Ene-diyneones Having DNA Cleaving and Cytotoxic Properties*, K.C. Nicolaou, A. Liu; Serial No. 07/938,756; U.S. Patent No. 5,274,141 issued Dec. 28, 1993.
24. *Dynemicin Analogs: Syntheses, Methods of Preparation and Use*, A.L. Smith, C.-K. Hwang, S. Wendeborn, K.C. Nicolaou, E.P. Schreiner, W. Stahl, W.-M. Dai, P.E. Maligres, T. Suzuki; Serial No. 07/886,984; U.S. Patent No. 5,276,159 issued Jan. 4, 1994.
25. *Dynemicin Analogs: Synthesis, Methods of Preparation and Use*, A.L. Smith, C.-K. Hwang, S.V. Wendeborn, K.C. Nicolaou, E.P. Schreiner, W. Stahl, W.-M. Dai, P.E. Maligres, T. Suzuki; Serial No. 07/939,104; U.S. Patent No. 5,281,710 issued Jan. 25, 1994.
26. *Open Chain Ene-diyne Dihydroperoxides Having DNA Cleaving Properties*, K.C. Nicolaou, E. Sorensen, C.-K Hwang, R. Discordia, R.G. Bergman, R.E. Minto; Serial No. 08/010,639; U.S. Patent No. 5,288,761 issued Feb. 22, 1994.
27. *Saccharide Intermediates in the Formation of the Calicheamicin and Esperamicin Oligosaccharides*, K.C. Nicolaou, R.D. Groneberg, E.P. Schreiner, W. Stahl; Serial No. 07/972,246; U.S. Patent No. 5,384,412 issued Jan. 24, 1995.
28. *Daunomycin Derivative with Reduced Cytotoxicity Toward Normal Cells*, K.C. Nicolaou, W.A. Wrasidlo, P.E. Maligres; Serial No. 07/922,834, U.S. Patent No. 5,413,992 issued May 9, 1995.
29. *Water Soluble Taxol Derivatives*, K.C. Nicolaou, C.G. Riemer, M.A. Kerr; Serial No. 08/122,722; U.S. Patent No. 5,422,364 issued Jun. 6, 1995.



30. *Access to Taxol Analogs*, K.C. Nicolaou, P.G. Nantermet, R.K. Guy, H. Ueno; Serial No. 08/110,095; U.S. Patent No. 5,440,057 issued Aug. 8, 1995.
31. *Total Synthesis of Taxol and Taxol Analogs*, K.C. Nicolaou, Z. Yang, J.-J. Liu, H. Ueno, P.G. Nantermet; Serial No. 08/197,637; U.S. Patent No. 5,461,169 issued Oct. 24, 1995.
32. *Taxoid Synthesis*, K.C. Nicolaou, C.F. Claiborne, P.G. Nantermet, E.A. Couladouros, E.J. Sorensen; Serial No. 08/201,926; U.S. Patent No. 5,481,007 issued Jan. 2, 1996.
33. *Induction and Inhibition of Apoptosis*, K.C. Nicolaou, W. Wrasidlo, A. Hiatt; Serial No. 08/046,626; U.S. Patent No. 5,500,432 issued Mar. 19, 1996.
34. *Formation of Esperamicin Precursors*, K.C. Nicolaou, D.A. Clark, Serial No. 08/312,106; U.S. Patent No. 5,504,206 issued Apr. 2, 1996.
35. *Transformations of Taxol*, K.C. Nicolaou, P.G. Nantermet, R.K. Guy, H. Ueno; Serial No. 08/193,263; U.S. Patent No. 5,504,222 issued Apr. 2, 1996.
36. *Dynemicin Analogs: Syntheses, Methods of Preparation and Use*, A.L. Smith, C.-K. Hwang, S.V. Wendeborn, K.C. Nicolaou, E.P. Schreiner, W. Stahl, W.-M. Dai, P.E. Maligres, T. Suzuki; Serial No. 08/184,580; U.S. Patent No. 5,527,805 issued June 18, 1996.
37. *Calicheamicin Mimics*, K.C. Nicolaou, E.N. Pitsinos, Serial No. 08/301,968; U.S. Patent No. 5,550,246 issued Aug. 27, 1996.
38. *Non-Peptide Peptidomimetics*, R.F. Hirschmann, K.C. Nicolaou, S. Pietranico, T.R. Reisine, J.M. Salvino, P. Sprengeler, C.D. Strader; Serial No. 08/144,660; U.S. Patent No. 5,552,534 issued Sept. 3, 1996.
39. *Water Soluble Taxol Derivatives*, K.C. Nicolaou, C.G. Riemer, M.A. Kerr; Serial No. 08/395,169; U.S. Patent No. 5,608,087 issued Mar. 4, 1997.
40. *Daunomycin Derivative with Reduced Cytotoxicity Toward Normal Cells*, K.C. Nicolaou, W.A. Wrasidlo, P.E. Maligres; Serial No. 08/423,266, U.S. Patent No. 5,643,887 issued Jul. 1, 1997.
41. *Access to Taxol Analogs*, K.C. Nicolaou, P.G. Nantermet, R.K. Guy, H. Ueno; Serial No. 08/512,229; U.S. Patent No. 5,750,691 issued May 12, 1998.
42. *Taxoid Synthesis*, K.C. Nicolaou, C.F. Claiborne, P.G. Nantermet, E.A. Couladouros, E.J. Sorensen; Serial No. 08/527,377; U.S. Patent No. 5,760,240 issued Jun. 2, 1998.
43. *Transformations of Taxol*, K.C. Nicolaou, P.G. Nantermet, R.K. Guy, H. Ueno; Serial No. 08/626,112; U.S. Patent No. 5,786,489 issued Jul. 28, 1998.
44. *Water Soluble Taxol Derivatives*, K.C. Nicolaou, C.G. Riemer, M.A. Kerr; Serial No. 08/811,522; U.S. Patent No. 5,817,840 issued Oct. 6, 1998.
45. *Analogs of Sarcodictyin and Eleutherobin*, K.C. Nicolaou, F. Van Delft, S. Hosokawa, S. Kim, T. Li, T. Ohshima, J. Pfefferkorn, D. Vourloumis, J.-Y. Xu, N. Winssinger; Serial No. 09/145,376; U.S. Patent No. 5,965,718 issued Oct. 12, 1999.

46. *Water Soluble Onium Salt of Taxo-Deterpenoid*, K.C. Nicolaou, W. Wrasidlo, R.K. Guy, E. Pitsinos; Serial No. 08/817,890; U.S. Patent No. 6,025,491 issued Feb. 15, 2000.
47. *Transformations of Taxol*, K.C. Nicolaou, P.G. Nantermet, R.K. Guy, H. Ueno; Serial No. 09/123,504; U.S. Patent No. 6,043,382 issued Mar. 28, 2000.
48. *Carbopeptoids and Carbonucleotoids*, K.C. Nicolaou; Serial No. 08/913,035; U.S. Patent No. 6,204,376 issued Mar. 20, 2001.
49. *Chemical Switching of Taxo-Diterpenoids Between Low Solubility Active Forms and High Solubility Inactive Forms*, K.C. Nicolaou, W. Wrasidlo, R.K. Guy, E. Pitsinos; Serial No. 08/750,638; U.S. Patent No. 6,252,094 B1, issued Jun. 26, 2001.
50. *Self-Assembled Taxo-Deterpenoid Nanostructures*, K.C. Nicolaou, W. Wrasidlo, R.K. Guy, E. Pitsinos; Serial No. 08/913,744; U.S. Patent No. 6,271,384 B1, issued Aug. 7, 2001.
51. *Epothilone Analogs*, K.C. Nicolaou, N.P. King, M.R. Finlay, Y. He, F. Roschangar, D. Vourloumis, S. Ninkovic, D. Hepworth, T. Li; Serial No. 09/102,602; U.S. Patent No. 6,380,394 B1 issued Apr. 30, 2002.
52. *Carbopeptoids and Carbo-nucleotoids*, K.C. Nicolaou; Serial No. 09/417,877; U.S. Patent No. 6,384,211 B1 issued May 7, 2002.
53. *Epothilone Analogs*, K.C. Nicolaou, Y. He, S. Ninkovic, J. Pastor, F. Roschangar, F. Sarabia, H. Vallberg, D. Vourloumis, N. Winssinger, Z. Yang, N.P. King, M.R. Finlay; Serial No. 08/923,869; U.S. Patent No. 6,441,186 B1, issued Aug. 27, 2002.
54. *Epothilone Derivatives and Their Synthesis and Use*, K.C. Nicolaou, N.P. King, M.R.V. Finlay, Y. He, F. Roschangar, D. Vourloumis, H. Vallberg, A. Bigot; Serial No. 09/720,070; U.S. Patent No. 6,531,497 B1 issued Mar. 11, 2003.
55. *Epothilone Analogs*, K.C. Nicolaou, Y. He, S. Ninkovic, J. Pastor, F. Roschangar, F. Sarabia, H. Vallberg, D. Vourloumis, N. Winssinger, Z. Yang, N.P. King, M.R. Finlay; Serial No. 09/319,885; U.S. Patent No. 6,660,758 B1 issued Dec. 9, 2003.
56. *Synthesis of Non-Symmetrical Sulfamides Using Burgess-Type Reagents*, K.C. Nicolaou, D. Longbottom, S.A. Snyder, X. Huang; Serial No.10/685,658; U.S. Patent No. 7,015,321 B2 issued Mar. 21, 2006.
57. *Analogs of Epothilones*, K.C. Nicolaou, A. Ritzén, K. Namoto; Serial No. 10/634,537; U.S. Patent No. 7,169,930 B2 issued Jan. 30, 2007.
58. *Epothilone Analogs*, K.C. Nicolaou, Y. He, S. Ninkovic, J. Pastor, F. Roschangar, F. Sarabia, H. Vallberg, D. Vourloumis, N. Winssinger, Z. Yang, N.P. King, M.R.V. Finlay; Serial No. 10/732,698; U.S. Patent No. 7,173,137 B2 issued Feb. 6, 2007.
59. *Cyclopropyl and Cyclobutyl Epothilone Analogs*, K.C. Nicolaou, K. Namoto, A. Ritzén, M. Shoji, T. Ulven, K.-H. Altmann; Serial No. 10/227,073; U.S. Patent No. 7,358,266 B2 issued Apr. 15, 2008.
60. *Inhibitors of NADH:Ubiquinone Oxidoreductase*, K.C. Nicolaou, J. Pfefferkorn, G.-Q. Cao, A.J. Roecker; Serial No. 10/363,181, U.S. Patent No. 7,410,998 B2, issued Aug. 12, 2008.

61. *Epothilone Derivatives and Their Synthesis and Use*, K.C. Nicolaou, N.P. King, M.R.V. Finlay, Y. He, F. Roschangar, D. Vourloumis, H. Vallberg, A. Bigot; Serial No. 10/386,999; U.S. Patent No. 7,579,366 B2, issued Aug. 25, 2009.
62. *HIF-1 Inhibitors*, E.G. Van Meir, C. Tan, A. J. Roecker, K.C. Nicolaou; Serial No. 10/550,286; U.S. Patent No. 7,652,033 issued Jan. 26, 2010.
63. *Chemical Synthesis of a Highly Potent Epothilone*, K.C. Nicolaou, B. Pratt, S. Arseniyadis; Serial No. 12/092,038; U.S. Patent No. 8,003,801 issued Aug. 23, 2011.
64. *HIF-1 Inhibitors*, E.G. Van Meir, K.C. Nicolaou; Serial No. 11/977,809; U.S. Patent No. 8,071,795 B2 issued Dec. 6, 2011.
65. *Preparation of (S,S)-Secoisolariciresinol Diglucoside and (R,R)-Secoisolariceresinol Diglucoside*, M. Christofidou-Solomidou, K.C. Nicolaou, N. Simmons, R.A.Valiulin, P.M. Heretsch; Appl. No. 61/833258, Prov. Appl. filed Jun. 10, 2013.
66. *Synthesis and Anticancer Bioactivity of Uncialamycin and Analogs Thereof*, K.C. Nicolaou, M. Lu, D. Mandal; Appl. No. 61/865,896; Prov. Appl. filed, Aug. 15, 2013.
67. *Synthesis and Anticancer Bioactivity of Uncialamycin and Analogs Thereof*, K.C. Nicolaou, M. Lu, D. Mandal; Appl. No. 61/868,783; Prov. Appl. filed, Aug. 22, 2013.
68. *Delta 12-PGJ<sub>3</sub>, Related Compounds, and Methods*, K.C. Nicolaou, P.M. Heretsch. Appl. No. 61/882,093; Prov. Appl. filed, Sep. 25, 2013.
69. *Delta 12-PGJ<sub>3</sub>, Related Compounds, and Methods*, K.C. Nicolaou, P.M. Heretsch. Appl. No. 61/897,681; Prov. Appl. filed, Oct. 30, 2013.
70. *Synthesis of  $\Delta$ 12-PGJ<sub>3</sub> and Related Compounds, a Potent and Selective Class of Agents Against Cancer Stem Cells and Associated Cancers*, K.C. Nicolaou, P.M. Heretsch. Appl. No. 61/920,302; Prov. Appl. filed, Dec. 23, 2013.

### **K.C. Nicolaou – Books as Co-Author**

1. *Selenium in Natural Products Synthesis*, K.C. Nicolaou, N.A. Petasis, CIS, Inc. Philadelphia, **1984**, p. 300.
2. *Classics in Total Synthesis*, K.C. Nicolaou, E.J. Sorensen, VCH Publishers, Weinheim, Germany, **1996**, p. 798.
3. *Classics in Total Synthesis II*, K.C. Nicolaou, S.A. Snyder, Wiley-VCH Publishers, Weinheim, Germany, **2003**, p. 636.
4. *Molecules That Changed the World*, K.C. Nicolaou, T. Montangon, Wiley-VCH Publishers, Weinheim, Germany, **2008**, p. 366.
5. *Classics in Total Synthesis III*, K.C. Nicolaou, J.S. Chen, Wiley-VCH Publishers, Weinheim, Germany, **2011**, p. 746.

### **K.C. Nicolaou – Books as Co-Editor**

1. *Handbook of Combinatorial Chemistry, Vols. 1 & 2*, Eds.: K.C. Nicolaou, R. Hanco, W. Hartwig, Wiley-VCH, Weinheim, Germany, 2001, p. 1114.

