March 2024

CURRICULUM VITAE

GLENN D. PRESTWICH

Date and Place of Birth: 29 November 1948, Panama Canal Zone; U.S. Citizen

Education

B.S. (Honors), 1970. California Institute of Technology, Pasadena, California; Ph.D., Organic Chemistry, 1974. Professor William S. Johnson, Advisor, Department of Chemistry, Stanford University, Palo Alto, California

Professional Experience

1974, 1977	Cornell University, NIH postdoctoral fellowship, Department of Chemistry
1974 – 1976	ICIPE, P.O. Box 30772, Nairobi, Kenya; Research Scientist in Chemistry Unit
1977 – 1996	Assistant, Associate, Full Professor of Chemistry, SUNY, Stony Brook, New York
1991 – 1992	Visiting Professor, Department of Chemistry, Harvard University
1992 – 1996	Professor of Biochemistry and Cellular Biology, SUNY, Stony Brook, New York
1992 – 1996	Director, Center for Biotechnology, SUNY, Stony Brook, New York
1996 – 2002	Chair, Medicinal Chemistry, The University of Utah
1996 – 2018	Research Professor of Biochemistry; Adjunct Professor of Chemistry and of Bioengineerin The University of Utah; Adjunct Professor of Biology (Utah State University, Logan, UT)
1996 – 2018	Presidential Professor, Medicinal Chemistry, The University of Utah (Emeritus 2018)
2001 – 2005	Chief Scientific Officer, Echelon Biosciences Incorporated, Salt Lake City, UT
2004 – 2005	Chief Scientific Officer, Sentrx Surgical, Inc., Salt Lake City, UT
2005 – 2007	Senior Scientific Advisor, Carbylan BioSurgery, Inc., Palo Alto, CA
2006 – 2011	Chief Scientific Officer, Glycosan BioSystems, Inc., Salt Lake City, UT
2006 – 2023	Scientific Advisor, Sentrx Animal Care, Inc., Salt Lake City, UT
2008 – current	Scientific Advisor, Echelon Biosciences-Frontier Scientific, Salt Lake City, UT
2008 – current	Chief Scientific Officer, GlycoMira, LLC and GlycoMira Therapeutics, Inc., Salt Lake City,
2011 – 2014	Scientific Advisor, BioTime, Inc., Alameda, CA
2012 – 2014	Chief Executive Officer, Metallosensors, Salt Lake City, UT
2015 - 2018	Chancellor's Distinguished Visiting Professor, Washington State University, WA
2014 - 2018	Manager, Deuteria Agrochemicals LLC, Reno, NV
2014 – 2022	Manager, Deuteria Biomaterials LLC, Reno, NV
2014 – current	Adjunct Professor of Surgery, Divn. of Otolaryngology, University of Utah, UT (Emeritus)
2017 – 2019	Chief Scientific Officer and Executive VP, Chemistry, Symic Bio, Inc.
2018 – 2021	President's Distinguished Professor, Washington State University (Emeritus 2022)
2020 – current	President, Matrix Diagnostics Biosystems, Inc, Spokane, WA
2020 – 2022	Director, **sp^{3}nw**, Spokane, WA
2020 – current	Science & Innovation Advisor, HTL Biotechnology, Paris, France
2021 – current	Vice President, Maana Discoveries, Inc., Missoula, MT

Professional Affiliations and Interests

Co-founder

Clear Solutions Biotech, Inc.; Echelon Biosciences Inc.; Sentrx Surgical, Inc.; Carbylan BioSurgery, Inc.; Glycosan BioSystems, Inc.; Sentrx Animal Care, Inc.; Clear Solutions Biomedical LLC; GlycoMira, LLC; GlycoMira Therapeutics, Inc.; Metallosensors, Inc.; Deuteria Agrochemicals LLC; Deuteria Biomaterials LLC; Matrix Diagnostics Biosystems, Inc.; Maana Discoveries, Inc.

Other Administrative and Advisory Roles

Director, Center for Cell Signaling (1997-2004) and Center for Therapeutic Biomaterials (2004-08); SAB, Tissue Engineering Center, CCF (2004-10); VP, International Society for Hyaluronan Science (2004-08); SAB, Novozymes Biopolymers (2006-11); SAB, Sorenson Discovery & Innovation Center (2007-11); SAB, Organovo, Inc. (2007-16); SAB, Inst. Systems Biol. & Ecol., Czech Academy of Sciences (2007-11); Chair, Advisory Board, National Center for Voice and Speech (2010-13); SAB, BOD, Brickell Biotech (2010-13); AB, Modern Meadow, Inc. (2012-17) AB, Jade Therapeutics, Inc./Eyegate, Inc. (2012-16); AB, American Med Chem (2013-18); AB, Asha Therapeutics (2013 -); SAB, Symic Bio (2014-17); SAB, Amasa Therapeutics, (2016 -); Advisor, Shasqi, Inc. (2017-); Advisor, C-DOCTOR (2019 -); Advisor, Valitor (2019 -); Advisor, Rebel Medicine (2019 -); Advisor, Glycologix (2022 -); Advisor, IHP Therapeutics (2022 -); Advisor, Endo Pharmaceuticals (2024-)

Research Interests

Phosphoinositide and lysolipid signaling, therapeutic biomaterials; anti-inflammatory GAGs

Courses Taught

Bioorganic Chemistry; Structural Organic Chemistry; Introductory, Honors and Intermediate Organic Chemistry, Chemical Ecology; Medicinal Chemistry; Site-Targeted Drug Delivery

Awards and Honors

National Institutes of Health Postdoctoral Fellow, 1976-1977; National Institutes of Health Senior Fellowship, 1992
Alfred P. Sloan Foundation Research Fellow, 1981-1985; Camille and Henry Dreyfus Teacher-Scholar, 1981-1986
Distinguished Research Fellow, Bodega Marine Laboratory, University of California, 1989
H.C. Brown Lecturer, Purdue University, March 1990
Paul Dawson Biotechnology Award, American Association of Colleges of Pharmacy, 1998
Silverstein-Simeone Award of the International Society of Chemical Ecology, 2001
Stoel Rives Utah Innovation Awards (Echelon Biosciences, 2003; Sentrx Surgical, 2005)
Fellow of the American Institute for Medical and Biological Engineering, 2005 - current
Governor's Medal for Science & Technology, 2006
VSpring Capital Top 100 Entrepreneurs, 2005, 2006
TIAA-CREF 'Greater Good Award' for 2006-2007
Utah Business Magazine's "Health Care Heroes," 2006
Volwiler Research Award, American Association of Colleges of Pharmacy, 2008
Rooster Prize for Therapeutic uses of Hyaluronan, International Society for Hyaluronan Science, 2010
University of Utah Distinguished Scholarly and Creative Research Award, 2010
Fellow of the National Academy of Inventors, 2013 - current
University of Utah Distinguished Innovation and Impact Award, 2014
Fellow, American Association for Advancement of Science, 2018 – current

Invited Presentations: Dr. Prestwich has presented over 700 invited talks; the past 13 years are listed below.

2011 Rice University, Workshop on 3D Cell Culture, 10 February
15th International Symposium on Recent Advances in Drug Delivery Systems, Salt Lake, 13-16 February
University of Georgia, College of Pharmacy, Athens, 1 March
Complex Carbohydrate Research Center, Athens, 2 March
Symposium Co-organizer and Plenary Speaker, Society for Biomaterials, Orlando, 13-16 April
Australasian Society for Biomaterials & Tissue Engineering, Queenstown, New Zealand, 27-29 April
Johnson-Sokatch Lecturer, University of Oklahoma, 11-12 May
OKBio Lecture, Oklahoma University Health Sciences Center, 12 May
Changchun Institute for Applied Chemistry, Chinese Academy of Sciences, 27 May
International Symposium on Biomaterials, Giulin City, China, 29 May – 1 June
Case Western Reserve University, 4th Annual Business of Regenerative Medicine Course, Cleveland, 11-13 July
European Society for Biomaterials, Dresden, Germany, 1-2 September
Pharmacy Alumni Advisory Committee, University of Utah, 6 October 2011
University of Nebraska, Department of Biochemistry and Redox Biology Center, Lincoln, 11 October
Plenary Keynote Lecturer, GTC Modern Drug Design and Development, San Diego, 19 October
Panelist, Modern Devices, Drugs and Delivery Summit, Salt Lake City, 26 October
Children's Hospital of Oakland Research Institute, Distinguished Lecture, Oakland, 6 December
Nano Today, Waikoloa, Hawaii, 11-15 December

2012 University of Texas, Austin, Department of Bioengineering, Austin, 2 February
Translational Medicine Symposium, U of Utah, Salt Lake City, Co-organizer, speaker, 7 February
Material Research Society Symposium, San Francisco, 12-15 April
GTC 8th Stem Cell Summit, Boston, 19,20 April
US-Canada Workshop on Commercialization, Universities of Calgary, Waterloo, and Montreal, 10-15 June
Advanced Functional Polymers for Medicine, Vico Equense, Italy, 2-6 July
Case Western Reserve University, 5th Annual Business of Regenerative Medicine Course, Cleveland, 14-16 July
Washington State University, College of Arts & Sciences, Bench to Business, 5 October
Commercialization Interchange, U of Utah, 17-19 October
GTC Modern Drug Discovery & Development Summit, Keynote, Philadelphia, 24,25 October
New Jersey Symposium on Biomaterials Science at Rutgers U, New Brunswick, 13-15 October
BioTime, Inc., videotaped seminar series on Clinical Biomaterials, Alameda, CA 19 November

2013 University of California San Francisco, 14-15 January
Translational Medicine Symposium, U of Utah, Salt Lake City, Co-organizer, speaker, 19 February
Executive Summit, Lassonde Center, Salt Lake City, UT 21-23 February
University of Georgia, College of Pharmacy, Athens, 5 March
Carnegie Mellon University-McGowan Institute Annual Retreat, 8 March
Washington State University, NIH Protein Technology Training Grant Keynote Talk, 13 April
HA 2013, co-organizer and speaker, University of Oklahoma, Oklahoma City, OK, 5-9 June
Case Western Reserve University, 6th Annual Business of Regenerative Medicine Course, Cleveland, 15-18 July
University of Utah, Department of Surgery Grand Rounds, 8 August
McGowan Institute for Regenerative Medicine, 9 October
Commercialization Interchange, U of Utah, 14-15 October
Penn State University Medical Center, Keynote for Awards Dinner, 22 October

2014 University of California, Riverside, Bioengineering, 22 January
Translational Medicine Symposium, U of Utah, Salt Lake City, Co-organizer, speaker, 11 February
University of Illinois, Urbana-Champaign, Chemical & Biomolecular Engineering, 20 March
Biomaterials for Biomolecule Delivery, Materials Research Society, San Francisco, 21-25 April
Penn State University Medical Center, Hershey, Keynote for Faculty Entrepreneur launch, 29 April 16, 2014
Intellectual Ventures, Seattle, 7 May
Gordon Research Conference on Proteoglycans, Andover, New Hampshire, 8-11 July
Case Western Reserve University, 7th Annual Business of Regenerative Medicine Course, Toronto, 14-17 July
Skaggs Symposium, Missoula, MT, 14 August
Commercialization of Micro and Nanotechnologies Symposium (COMS), Salt Lake City, 13 October
Commercialization Interchange, Midway and U of Utah, 14-16 October
Rotary Club of Salt Lake, 2 December

2015 National Cancer Institute, Frederick, MD, 22 January

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University of Texas San Antonio Health Sciences Center, 13 April
Hong Kong University of Science & Technology, Keynote, 20-23 April
HA 2015, co-organizer and speaker, Firenze, Italy 7-11 June
Rutgers University, Faculty Ambassadors, 22-24 June
Commercialization Interchange, Salt Lake City, New Brunswick, NJ 13-15 October
Hong Kong University of Science & Technology, Entrepreneurship Talk, 8 October
Alliance for Arts in Research Universities, Workshop, Va6-8 November

2016 Washington State University, Pullman, WA Launch of Entrepreneurial Faculty Ambassadors, 19 January
University of Montana, Biomedical Engineering & Entrepreneurship, Missoula, MT 24-25 March
Assoc for Research in Vision & Ophthalmology, Intellectual Property Symposium, Seattle, 30 April
Translate! 2016, speaker/moderator, Berlin, Germany, 23-27 May
Gordon Research Conference on Proteoglycans, 10-15 July
UC Irvine Innovation Center, Entrepreneurship and Translational Medicine, 29 July
Moving Forward with Stem Cell Therapy, EuroCon web seminar, 6 September
Commissioned Sounds of Science's "Reaction Yield" by Third Coast Percussion, 8 October premiere, Chicago
Led External Review of Innovation and Entrepreneurship team, WSU Pullman and Spokane, 7-9 Nov

2017 Leadership Retreat invitee, Mayo Clinic Executive Dean for Research, Tucson, AZ 12-13 February
Translational Medicine Symposium, U of Utah, Salt Lake City, Co-organizer, speaker, 27 February
Cornell University, BEST Program, College of Veterinary Medicine, Ithaca, NY 22 May
HA 2017, Session organizer and speaker, Cleveland Clinic, OH 11-15 June
90th Birthday Celebration for Jerrold Meinwald, ISCE, Kyoto, Japan, 22 August

2018 Health Sciences Entrepreneur Lecturer, University of Utah, 31 January
ACS Symposium on Frontiers in Glycoscience, 18 March
Proteoglycans Gordon Conference, Entrepreneurship Power Hour, 8-13 July

2019 University of Nottingham, Biomaterials Discovery Workshop, 16 January
Manchester University, Wellcome Center for Cell Matrix Research, 18 January
Induction Ceremony, AAAS Fellows, 16 February
Brigham Young University, Bioengineering, 22 February
University of North Carolina, Dentistry, Biology 9-10 April
Michigan State University, Chemistry, 12 April
Stanford University, SPARK, Bioengineering, Medicine, 22-23 April
HA 2019, Cardiff, Wales, 9-13 June
University of Virginia, Bioengineering, 29 October

2020 Inland NW Students (AWIS/GRSA), WSU Spokane, 13 February
Biomaterials WBC 2020, Keynote, HA Symposium, 12-17 December

2021 Translate! Berlin, Invited Panelist, online, 25-26 January
Biologic Scaffolds Regenerative Medicine, Napa, CA April 28-May 4
Third Annual Drug Delivery West, online, 7-8 May
Basement Membrane Extract Replacement Symposium/Webinar, online, 21 October

2022 Southeastern University, College of Natural & Health Sciences, 17 March
Proteoglycans Gordon Conference, Session Chair, 13-17 July

2023 SC BioCraft, Clemson-MUSC, 16 March
HA 2023 Portland, 3-9 June
12th International Proteoglycan Conference, Horsley, UK 4-6 September
Pharmaceutics Students, U Utah, 25 September

2024 Proteoglycans Gordon Conference, Session Chair, 10-10 July

Publications of Original Research

1. G.D. Prestwich, "I. Solvolysis of *trans*-9-Methyl-5,9-undecadienyl and *trans*-Undec-5-en-9-ynyl *para*-Nitrobenzene Sulfonates. II. The Total Synthesis of *dl*-Serratenediol *via* a Cationic Polyolefinic Cyclization," Ph.D. Dissertation, Stanford University, 1974.x

2. G.D. Prestwich and J.N. Labovitz, "Application of Nonenzymic Biogenetic-like Olefinic Cyclizations to the Total Synthesis of *dl*-Serratenediol," *J. Am. Chem. Soc.*, **96**, 7103-7105 (1974).

3. G.D. Prestwich, "Chemical Analysis of Soldier Defensive Secretions Species of East African Termites," *Proc. IUSSI Symp.* (Dijon), pp 149-152 (1975).

4. G.D. Prestwich, M. Kaib, W.F. Wood, and J. Meinwald, "1,13-Tetradecadien-3-one and Homologs: New Natural Products Isolated from *Schedorhinotermes* Soldiers," *Tetrahedron Lett.*, 4701-4704 (1975).

5. W.F. Wood, M.G. Leahy, R. Galun, G.D. Prestwich, J. Meinwald, R.E. Purnell, and R.C. Payne. "Phenols as Sex Pheromones of Ixodid Ticks: A General Phenomenon?," *J. Chem. Ecol.*, **1**, 501-509 (1975).

6. G.D. Prestwich, F.B. Whitfield, and G. Stanley, "Synthesis and Structures of Dihydroedulan I and II: Trace Components from the Juice of *Passiflora edulis* Sims," *Tetrahedron*, **32**, 2945-2948 (1976).

7. G.D. Prestwich, "Composition of the Scents of Eight East African Hemipterans. Nymph-Adult Chemical Polymorphism in Coreids," *Ann. Entomol. Soc. Am.*, **69**, 812-814 (1976).

8. G.D. Prestwich, S.P. Tanis, J.P. Springer, and J. Clardy, "Nasute Termite Soldier Frontal Gland Secretions. I. Structure of Trinervi-2β,3α,9α-triol 9-*O*-Acetate, a Novel Diterpene from *Trinervitermes* Soldiers," *J. Am. Chem. Soc.*, **98**, 6061-6062 (1976).

9. G.D. Prestwich, S.P. Tanis, F. Pilkiewicz, I. Miura, and K. Nakanishi, "Nasute Termite Soldier Frontal Gland Secretions. II. Structures of Trinervitene Congeners from *Trinervitermes* Soldiers," *J. Am. Chem. Soc.*, **98**, 6062-6064 (1976).

10. G.D. Prestwich, "Chemical Composition of the Soldier Secretions of the Termites *Trinervitermes gratiosus*, *Insect Biochem.* **7**, 91-94 (1977).

11. G.D. Prestwich, B.A. Bierl, E.D. DeVilbiss, and M.F.B. Chaudhury, "Soldier Frontal Glands of the Termite *Macrotermes subhyalinus*: Morphology, Chemical Composition, and Use in Defense," *J. Chem. Ecol.*, **3**, 579-590 (1977).

12. G.D. Prestwich, B.A. Solheim, J. Clardy, F.G. Pilkiewicz, I. Miura, S.P. Tanis, and K. Nakanishi, "Kempene-1 and -2, Unusual Tetracyclic Diterpenes from *Nasutitermes* Termite Soldiers," *J. Am. Chem. Soc.*, **99**, 8082-8083 (1977).

13. G.D. Prestwich, D.F. Wiemer, J. Meinwald, and J. Clardy, “Cubitene: An Irregular Twelve-Membered-Ring Diterpene from a Termite Soldier” *J. Am. Chem. Soc.*, **100**, 2560-2561 (1978).

14. G.D. Prestwich, “Isotrinervi-2β-ol. Structural Isomers in the Defense Secretions of Allopatric Populations of the Termite *Trinervitermes gratiosus*,” *Experientia*, **34**, 682-683 (1978).

15. J. Meinwald, G.D. Prestwich, K. Nakanishi, and I. Kubo, “Chemical Ecology: Studies from East Africa,” *Science*, **199**, 1167-1173 (1978).

16. G.D. Prestwich, “Termites: Dweller in the Dark,” *National Geographic*, **153**, 532-547 (April 1978).

17. D.F. Wiemer, J. Meinwald, G.D. Prestwich, and I. Miura, “Cembrene A and (3*Z*)-Cembrene A: Diterpenes from a Termite Soldier (Isoptera:Termitidae: Termitinae),” *J. Org. Chem.*, **44**, 3950-3952 (1979).

18. G.D. Prestwich, “Interspecific Variation in the Defence Secretions of *Nasutitermes* Soldiers,” *Biochem. Syst. Ecol.*, **7**, 211-221 (1979).

19. G.D. Prestwich, “Defence Secretion of the Black Termite, *Grallatotermes africanus* (Termitidae, Nasutitermitinae),” *Insect Biochem.*, **9**, 563-567 (1979).

20. G.D. Prestwich, J.W. Lauher, and M.S. Collins, “Two New Tetracyclic Diterpenes from the Defense Secretion of the Neotropical Termites *Nasutitermes octopilis*, *Tetrahedron Lett.*, 3827-3830 (1979).

21. G.D. Prestwich, “Las Termitas: El Increible Mundo de Milliones de Seres Ciegos, Sordos y Mudos,” *GeoMundo*, **2**, 704-720 (January 1979).

22. G.D. Prestwich, “Chemical Defense by Termite Soldiers,” *J. Chem. Ecol.*, **5**, 459-480 (1979).

23. G.D. Prestwich, “Termite Chemical Defense: New Natural Products and Chemosystematics,” *Sociobiology*, **4**, 127-138 (1979).

24. G.D. Prestwich and J. Vrkoc, “Standard Nomenclature for Termite Diterpenes,” *Sociobiology*, **4**, 139-140 (1979).

25. D.F. Wiemer, J. Meinwald, G.D. Prestwich, B.A. Solheim, and J. Clardy, “Biflora-4,10(19),15-triene: A New Diterpene from a Termite Soldier (Isoptera: Termitidae: Termitinae),” *J. Org. Chem.*, **45**, 191-192 (1980).

26. G.D. Prestwich, S.G. Spanton, J.W. Lauher, and J. Vrkoc, "Structure of 3α-Hydroxy-15-rippertene. Evidence for a 1,2-Methyl Migration During Biogenesis of a Tetracyclic Diterpene in Termites,” *J. Am. Chem. Soc.*, **102**, 6825-6828 (1980).

27. G.D. Prestwich, K.A. Plavcan, and M. Melcer, "Synthesis of Fluorolipids: 1-*O*-Alkyl-2,3-*O*-Diacylglycerides as Targeted Insecticides," *J. Agric. Food Chem.,* **29**, 1018-1022 (1981).

28. G.D. Prestwich, M.E. Melcer, K.A. Plavcan, "Fluorolipids as Targeted Termiticides and Biochemical Probes," *J. Agric. Food Chem.,* **29**, 1023-1027 (1981).

29. G.D. Prestwich, B.L. Bentley, and E.J. Carpenter, "Nitrogen Sources of Neotropical Nasute Termites: Fixation and Selective Foraging," *Oecologia,* **46**, 397-401 (1980).

30. G.D. Prestwich and D. Chen, "Soldier Defense Secretions of *Trinervitermes bettonianus* (Isoptera, Nasutitermitinae): Chemical Variation in Allopatric Populations," *J. Chem. Ecol.*, **7**, 147-157 (1981).

31. G.D. Prestwich, S.H. Goh, and Y.P. Tho, "Termite Soldier Chemotaxonomy. A New Diterpene from Malaysian Nasute Termite *Bulbitermes singaporensis*," *Experientia*, **37**, 11-12 (1981).

32. G.D. Prestwich and M.S. Collins, "Chemotaxonomy of *Subulitermes* and *Nasutitermes* Termite Soldier Defense Secretions. Evidence Against the Hypothesis of Diphyletic Evolution of the Nasutitermitinae," *Biochem. Syst. Ecol.*, **9**, 83-88 (1981).

33. G.D. Prestwich, S.G. Spanton, S.H. Goh, and Y.P. Tho, "New Tricyclic Diterpene Propionate Esters from a Termite Soldier Defense Secretion," *Tetrahedron Lett.* **22**, 1563-1566 (1981).

34. G.D. Prestwich, R.W. Jones, and M.S. Collins, "Terpene Biosynthesis by Nasute Termite Soldiers (Isoptera: Nasutitermitinae)," *Insect Biochem.*, **11**, 331-336 (1981).

35. G.D. Prestwich and M.S. Collins, "A Novel Enolic β-Ketoaldehyde in the Defense Secretion of the Termite *Rhinotermes hispidus*," *Tetrahedron Lett.*, **21**, 5001-5002 (1980).

36. G.D. Prestwich and B.L. Bentley, "Nitrogen Fixation by Intact Colonies of the Termite *Nasutitermes corniger*," *Oecologia,* **49**, 249-251 (1981).

37. G.D. Prestwich and M.S. Collins, "3-Oxo-(*Z*)-9-Hexadecenal: An Unusual Enolic β-Keto Aldehyde from a Termite Soldier Defense Secretion," *J. Org. Chem.*, **46**, 2383-2385 (1981).

38. H.-M. Shieh and G.D. Prestwich, "Stereoselective Alkylation and Aldol Reactions of (S)-(-)-β-Hydroxy-γ-butyrolactone Dianion," *J. Org. Chem.*, **46**, 4319-4321 (1981).

39. G.D. Prestwich and M.S. Collins, "Macrocyclic Lactones as the Defense Substances of the Termite Genus *Armitermes*," *Tetrahedron Lett.*, **22**, 4587-4590 (1981).

40. S.G. Spanton and G.D. Prestwich, "Chemical Self-Defense by Termite Workers: Prevention of Autotoxication in Two Rhinotermitids," *Science*, **214**, 1363-1365 (1981).

41. G.D. Prestwich and M.S. Collins, "Chemical Defense Secretions of the Termite Soldiers of *Acorhinotermes* and *Rhinotermes* (Isoptera, Rhinotermitinae): Ketones, Vinyl Ketones, and β-Ketoaldehydes Derived from Fatty Acids," *J. Chem. Ecol.*, **8**, 147-161 (1982).

42. G.D. Prestwich, "From Tetracycles to Macrocycles: Chemical Diversity in the Defense Secretions of Nasute Termites," *Tetrahedron*, Symposium-in-Print, **38**, 1911-1919 (1982).

43. S.G. Spanton and G.D. Prestwich, "Chemical Defense and Self-Defense: Biochemical Transformations of Contact Insecticides Produced by Soldier Termites," *Tetrahedron*, Symposium-in-Print, **38**, 1921-1930 (1982).

44. J.F. Carvalho and G.D. Prestwich, "Evidence for Stereoselective Lipolysis in a Termite. Toxicity of Enantiomeric ω-Fluorinated Alkyldiacylglycerols to *Reticulitermes flavipes*," *Insect Biochem.*, **12**, 343-348 (1982).

45. G.D. Prestwich, G.E. Kovalick, and J.K. Koeppe, "Photoaffinity Labelling of Juvenile Hormone Binding Proteins in the Cockroach *Leucophaea maderae*," *Biochem. Biophys. Res. Commun.,* **107**, 966-973 (1982).

46. G.D. Prestwich, "Termite Soldiers: Warriors with Chemical Weapons," *The Science Teacher*, **49**, 50-53 (1982).

47. G.D. Prestwich, "The Total Termite," *The Science Teacher*, **49**, 29-33 (1982).

48. T.B. Kline and G.D. Prestwich, "Side Chain Modified Sterols as Probes into Insect Molting Hormone Metabolism. I. Synthesis of Monofluorophytosterols," *Tetrahedron Lett.*, **23**, 3043-3046 (1982).

49. G.D. Prestwich and B.L. Bentley, "Ethylene Production by the Fungus Comb of Macrotermitines (Isoptera, Termitidae): A Caveat for the Use of the Acetylene Reduction Assay for Nitrogenase Activity," *Sociobiology*, **7**, 145-152 (1982).

50. Y. Naya, G.D. Prestwich, and S.G. Spanton, "Sesquiterpenes from Termite Soldiers. Structure of Amiteol, A New 5β, 7β, 10β Eudesmane from *Amitermes excellens*," *Tetrahedron Lett.*, **23**, 3047-3050 (1982).

51. H.-M. Shieh and G.D. Prestwich, "Chiral, Biomimetic Total Synthesis of (-)-Aplysistatin," *Tetrahedron Lett.*, **23**, 4643-4646 (1982).

52. M.S. Collins and G.D. Prestwich, "Defense in *Nasutitermes octopilis* Banks (Isoptera, Termitidae, Nasutitermitinae): Comparative Effectiveness of Soldier Secretion," *Insectes Sociaux,* **30**, 70-81 (1983).

53. G.D. Prestwich, J.K. Mauldin, J.B. Engstrom, J.F. Carvalho, and D.Y. Cupo, "Comparative Toxicity of Fluorinated Lipids and Their Evaluation as Bait-Block Toxicants for the Control of *Reticulitermes* spp. (Isoptera: Rhinotermitidae)," *J. Econ. Entomol.,* **76**, 690-695 (1983).

54. G.D. Prestwich, H.-M. Shieh, and A.K. Gayen, "Side Chain Modified Sterols as Probes into Insect Molting Hormone Metabolism. II. Synthesis of Monofluorocholesterols," *Steroids*, **41**, 79-94 (1983).

55. G.D. Prestwich, "The Chemical Defenses of Termites," *Scientific American*, pp. 78-87 (August 1983).

56. G.D. Prestwich and S. Phirwa, "Synthesis of 29-Fluorophytosterols: A Novel Class of Insect-Activated Selective Poisons," *Tetrahedron Lett.*, **24**, 2461-2464 (1983).

57. G.D. Prestwich, A.K. Singh, J.F. Carvalho, J.K. Koeppe, and G.E. Kovalick, "Photoaffinity Labels for Insect Juvenile Hormone Binding Proteins: Synthesis and Evaluation *In Vitro*" *Tetrahedron*, Symposium-in-Print, **40**, 529-537 (1984).

58. C.H. Chuah, S.H. Goh, G.D. Prestwich, and Y.P. Tho, "Soldier Defense Secretions of the Malaysian Termite *Hospitalitermes umbrinus* (Isoptera, Nasutitermitinae)," *J. Chem. Ecol.*, **9**, 347-356 (1983).

59. S.H. Goh, C.H. Chuah, Y.P. Tho, and G.D. Prestwich, "Extreme Intraspecific Chemical Variability in Soldier Defense Secretions of Allopatric and Sympatric Colonies of *Longipeditermes longipes*," *J. Chem. Ecol.*, **10**, 929-944 (1984).

60. J.K. Koeppe, G.E. Kovalick, and G.D. Prestwich, "A Specific Photoaffinity Label for Hemolymph and Ovarian Juvenile Hormone-binding Proteins in *Leucophaea maderae*," *J. Biol. Chem.,* **259**, 3219-3223 (1984).

61. G.D. Prestwich, A.K. Gayen, S. Phirwa, and T.B. Kline, "29-Fluorophytosterols: Novel Pro-insecticides Which Cause Death by Dealkylation," *Bio/Technology*, **1**, 62-65 (1983).

62. J.F.A. Traniello, B.L. Thorne, and G.D. Prestwich, "Chemical Composition and Efficacy of the Cephalic Gland Secretion of *Armitermes chagresi* (Isoptera: Termitidae)," *J. Chem. Ecol.*, **10**, 531-543 (1984).

63. J.F. Carvalho and G.D. Prestwich, "Synthesis of ω-Tritiated and ω-Fluorinated Analogues of the Trail Pheromone of Subterranean Termites," *J. Org. Chem.*, **49**, 1251-1258 (1984).

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Membership and Offices Held

American Chemical Society (1970-current)
Entomological Society of America (1976-1992)
International Union for Study of Social Insects (1975-1999)
International Society of Chemical Ecology (lifetime member)
American Association for the Advancement of Science (1975 – current)
Sigma Xi (1977-current; President 1986-87, local chapter)
American Associate of Colleges of Pharmacy (1998-current)
Alternate Councilor, Division of Medicinal Chemistry, American Chemical Society (2002-2004)
American Association for Cancer Research (2003-2019)
Society for Biomaterials (2003 – current)
International Society for Hyaluronan Sciences (founding VP Applied Research; 2004 – current)
Tissue Engineering and Regenerative Medicine Society (2006 – current)

Supervisor for NIH Postdoctoral Fellows

Dr. Mirza A. Mohamed, October 1986 - March 1989, 1F32 GM 1156501
Dr. Gregory M. Anstead, February 1988 - August 1989, 1F32 HL 0761301

Mentor for Research and Clinical Faculty

Research Assistant Professor Ikuro Abe, July 1996 - March 1998
Research Assistant Professor Koen P. Vercruysse, June 1998 - July 2000
Research Assistant Professor Yi Luo, June 2000 - December 2001
Research Professor Shoichiro Ozaki, September 1997 - September 2002
Research Associate Professor Jerald C. Hinshaw, July 1999 - June 2007
Research Assistant Professor Yanchun Liu, September 2004 - June 2006
Research Assistant Professor Xiao Zheng Shu, September 2004 - July 2006
Research Assistant Professor Yong Xu, September 2004 - January 2006
Research Assistant Professor Honglu Zhang, July 2007 - July 2008
Assistant Professor of Surgery Siam Ootamasathien, January 2009 – current
Assistant Professor of Surgery Jeremiah Alt, July 2013 - current

Host for Visiting Faculty Members and Scientists

Professor John J. Brown (Entomology, Washington State University), 1982
Professor Ryohei Yamaoka (Chemical Ecology, Kyoto Technical University, Japan), 1982-1983
Professor Arnon Shani (Chemistry, Ben Gurion University, Israel), 1987-1988
Professor James E. Carrel (Biology, University of Missouri, Columbia), 1990
Professor Angel Guerrero (Department of Bioorganic Chemistry, CSIC, Brarcelona, Spain), 1991
Professor Shoichiro Ozaki (Department of Applied Chemistry, Ehime University, Japan), 1996
Dr. David R. Greenwood (HortResearch, Mt. Albert Research Centre, Auckland, New Zealand), 1997
Professor Alice Perez (Chemistry, University of Costa Rica), 1998
Professor Matthew A. Movsesian (Cardiology, The University of Utah), 2000
Dr. David R. Greenwood (HortResearch, Mt. Albert Research Centre, Auckland, New Zealand), 2000
Professor Robert A. Peattie (Engineering, Trinity College, Hartford, Connecticut), 2001
Professor Young Il Yang (Pathology, Paik-Inje Memorial Institute for Biomedical Science, Pusan, Korea), 2003
Professor Jennifer Wilson (Institute for Glycomics, Griffith University, Gold Coast, Australia), 2005

Reviewer of Manuscripts and Grants: more than 50 journals including:

Biochemistry
Biomacromolecules
Biomaterials
Bioorg. Med Chem. Lett.
Chem. & Biol.
Chem. Senses
Eur. J. Biochem.
J. Biol. Chem.
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Nature
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Organic Lett.
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Alfred P. Sloan Foundation
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National Science Foundation (8 programs)
NIH Study Section, Bioorganic and Natural Products (ad hoc)
NSERC (Canada)
DOD Breast Cancer Review Panel
Petroleum Research Fund
Research Corporation
NIH Special Study Section (SBIRs) (1998 - 2002)
Chair, Gordon Research Conference, Natural Products (1990)
Chair, Gordon Research Conference, Bioorganic Chemistry (1995)

Editorial and Advisory Boards

Journal of Chemical Ecology (1984 - 1998)
Insect Biochemistry and Molecular Biology (1985 - 1996)
Quarterly Review of Biology (Book Review Consultant, 1986 -1996)
ChemTracts (Organic Chemistry), Invited Expert Analyst (1989 - 2010)
Bioconjugate Chemistry (1992 - 2010)
Current Opinion in Chemical Biology (1997 - 2017)
Journal of Biological Chemistry (2000 - 2006)
M.D. Anderson Cancer Center Advisory Board, University of Texas (2001 - 2004)
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