

CURRICULUM VITAE

NAME: Ajit Pothan Varki
CITIZENSHIP: United States Citizen
PERSONAL: Spouse - Nissi Mary Varki
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EDUCATION and PROFESSIONAL EXPERIENCE:

1968 – 1974 Christian Medical College, Vellore, India
1974 – 1975 Rotating Internship, Christian Medical College Hospital, Vellore, India
1975 University of Madras M.B., B.S. (USA M.D. equivalent), Madras, India
1975 Resident Medical Officer, Malankara Mission Hospital, Kolenchery, Kerala, India
1976 Research Assistant, Biochemistry Laboratories, University of Nebraska, Omaha, NE
1976 – 1977 Resident in Internal Medicine, Episcopal Hospital Temple University, Philadelphia, PA
1977 – 1978 Resident in Internal Medicine, University of Nebraska, Omaha, NE
1978 – 1982 Hematology-Oncology Fellow, (S. Kornfeld Lab) Washington University, St. Louis, MO
1980 – 1982 Instructor in Internal Medicine, Washington University School of Medicine, St. Louis, MO
1982 – 1987 Assistant Professor of Medicine, University of California, San Diego (UCSD)
1987 – 1989 Co-Head, Division of Hematology-Oncology (Hematology), UCSD
1987 – 1991 Associate Professor of Medicine, UCSD
1992 – 1996 Editor-in-Chief, Journal of Clinical Investigation
1996 President, Society for Glycobiology
1994 – 1997 Associate Director for Basic Research, UCSD Cancer Center
1996 – 1997 Interim Director, UCSD Cancer Center
1998 – 1999 President, American Society for Clinical Investigation
1993 – 2000 Founding Director, Glycobiology Research & Training Center (GRTC), UCSD
1993 – 2000 Founding Member, Division of Cellular and Molecular Medicine, UCSD
1998 – 2000 Principal Investigator, T32 Training Program in Cancer Research, UCSD
1991 – 2006 Professor of Medicine, UCSD
2001 – 2006 Professor of Cellular & Molecular Medicine, UCSD
1997 – 2007 Coordinator, Project for Explaining the Origin of Humans, UCSD

2003 – 2010	Associate Dean for Physician-Scientist Training, UCSD
2011 – 2018	National Coordinator, Programs of Excellence in Glycosciences, NHLBI
2017 – 2019	Founding Coordinator, Glycans Page and Symbol Nomenclature for Glycans, NCBI
1999 – present	Executive Editor, “ <i>Essentials of Glycobiology</i> ” Cold Spring Harbor Laboratory Press
2003 – present	Co-Director, Glycobiology Research & Training Center (GRTC), UCSD
2006 – present	Distinguished Professor of Medicine and Cellular & Molecular Medicine, UCSD
2008 – present	Executive Co-Director, UCSD / Salk Center for Academic Research & Training in Anthropogeny (CARTA), UCSD
2015 – present	Adjunct Professor, Salk Institute for Biological Studies
2018 – present	National Coordinator, Consortium for Career Development in Glycosciences, NHLBI

MEMBERSHIPS:

	American Academy of Arts and Sciences (AAA&S)*
	American Association for Cancer Research**
	American Society for Aesthetics**
	American Society for Cell Biology
(*Elected)	American Society for Clinical Investigation*
	American Society of Biochemistry & Molecular Biology
	American Society of Hematology
(**Invited)	American Society of Primatologists**
	Association of American Physicians*
	National Academy of Medicine*
	Sigma Xi, The Scientific Research Honor Society**
	Society for Evolution, Medicine & Public Health**
	Society for Glycobiology

LICENSURE and CERTIFICATIONS:

State of Nebraska, #13480, 1976
 State of Missouri, #R9122, 1979
 American Board in Internal Medicine, 1980
 American Board in Oncology, 1981
 American Board in Hematology, 1982
 State of California, #A38950, 1982

HONORS and AWARDS:

Appointed BCBS High School Chapel Prefect, 1966
 Appointed BCBS High School Senior Prefect, 1967
 First Rank in High School Class, BCBS, Bangalore, 1963-1967
 First Rank in Medical School Class, CMC Vellore, 1969-1974
 Paul Souris Gold Medal in Anatomy, CMC Vellore, 1971
 Devadatta Prize in Biochemistry, CMC Vellore, 1971
 Undergraduate Research Award, CMC Vellore, 1972
 Professor Gault Prize in Pathology, CMC Vellore, 1972
 TCF Silver Jubilee commemoration Gold medal in Pediatrics, CMC Vellore, 1973
 Ida Scudder Gold Medal in Obstetrics & Gynecology, CMC Vellore, 1974

John S. Carman Gold Medal in Surgery, CMC Vellore, 1974
Mary Israel Prize in Medicine, CMC Vellore, 1974
Merck Award & M. David Memorial Gold Medal, CMC Graduating Class, 1974-1975
Jawaharlal Nehru Memorial Award in Medicine, University of Madras, 1975
CAOG Annual Award, Houston, Texas, 1978
John A & George L. Hartford Fellow, 1982-1985
American Cancer Society Senior Faculty Research Award, 1985-1990
Elected Member, American Society for Clinical Investigation, 1987
Elected Editor, Journal of Clinical Investigation, 1991
Elected Member, Association of American Physicians, 1994
Elected Chair, Gordon Conference on Glycobiology, 1995
Elected President, Society for Glycobiology, 1995
NIH MERIT Award, 1995-2005
Elected President, American Society for Clinical Investigation, 1997
Elected Member, American Academy of Arts & Sciences, 2005
Karl Meyer Award, Society for Glycobiology, 2005
Honorary Distinguished Professorship, Indian Institute of Technology, Madras, 2006-2011
Elected to National Academy of Medicine, 2006
International Glycoconjugate Organization (IGO) Award, 2007
Ranbaxy Research Award in Medical Sciences, Medical Research, 2007
Honorary Visiting Professor, National Center for Biological Sciences, India, 2013-present
Old Cottonian of Eminence Award, 150th Anniversary of BCBS, Bangalore, India, 2015
Doctor Honoris Causa, University of San Martin, Buenos Aires, Argentina, May 2019
Rosalind Kornfeld Award for Lifetime Achievement in Glycobiology, November 2020
Invited Member of Sigma Xi, The Scientific Research Honor Society, June 2021

LECTURESHIPS:

Latta Memorial Lecture, University of Nebraska, 1994
Faculty Distinguished Lecturer, UC San Diego, February 1997
University Lecturer, UT Southwestern, Dallas, 1997
Faculty Distinguished Lecturer, UC San Diego SOM, May 2000
Distinguished City Lecture, CDFD/CCMB, Hyderabad, January 2003
Richard Winzler Lecture, Florida State University, April 2003
Graduate Students Invited Lecture, University of Wisconsin, June 2003
Damodaran Memorial Lecture, University of Kerala, January 2004
Glycoforum Lecture, Swiss Federal Institute of Technology (ETH), September 2004
Keynote Speaker, UCSD "All Graduate Student" Symposium, January 2005
Wenner-Gren Lecture, Stockholm University, 2005
Patrick Ledden Memorial Lecture, UC San Diego, May 2006
Keynote Speaker, GCRC 35th Anniversary Celebrations, Mayo Clinic, March 2006
Distinguished Keynote Speaker, American Society for Human Genetics, October 2006
Life Sciences Distinguished Lecture, National University of Singapore, Singapore, 2007
19th Annual International Symposium on Glycoconjugates, Cairns, Australia, 2007
12th Lectureship of Inst. of Cell & Developmental Bio. Stony Brook University, April 2009
Dean's Distinguished Seminar, University of Colorado at Denver, May 2009

Irwin Goldstein Lectureship, University of Michigan, September 2009
Bremer Foundation Lectureship, Ohio State University, May 2010
Graduate Students Invited Lecture, Albert Einstein College of Medicine, NY, May 2010
General Thimayya Lecturer, Bishop Cotton Boys School, Bangalore, January 2011
Graduate Students Invited Lectureship, University of Guelph, April 2011
Peter Gallagher Memorial Glycomics Lecture, Griffiths University, Australia October 2011
Carl V. Moore Memorial Lecturer, Washington University, St. Louis, November 2011
Neurosciences Graduate Students Invited Lectureship, UC San Diego, May 2012
Plenary Lecturer, Mucins in Health Workshop, Cambridge University, UK, July 2013
Plenary Lecturer, 2nd Latin American Congress of Glycobiology, Mexico, July 2013
14th European Meeting on Complement in Human Diseases, Germany, August 2013
Primate Behavioral Genetics, Cold Spring Harbor, New York, September 2013
Danny Brower Memorial Seminar, Tucson, University of Arizona, November 2013
IISER Symposium on The Evolution of Human Cognition, Pune, India, November 2013
Wellcome Trust/DBT India Alliance Public Lecture Series, Mumbai, India, November 2013
International Carbohydrate Symposium (ICS) 27, Bangalore India, January 2014
Wellcome Trust/DBT Alliance Public Lecture Series, Hyderabad, India, January 2014
IUBMB 10th International Symposium on Cell Surface Macromolecules, Kolkata India,
January 2014
Wellcome Trust/DBT Alliance Public Lecture Series, Kolkata, India, January 2014
Tata Memorial Cancer Center, Kolkata, India, January 2014
Wellcome Trust/DBT Alliance Public Lecture Series, Bangalore, India, February 2014
National Center for Biological Sciences, Bangalore, India, February 2014
UCSD Department of Medicine Grand Rounds, San Diego, California, March 2014
Pharmaceutical Sciences Departmental Seminar, Irvine, California, March 2014
Evolutionary Biology and Ecology Departmental Seminar, Irvine, California, March 2014
Evolution of Modern Humans, Cell Symposium, Sitges, Spain, March 2014
San Diego Glycobiology Symposium, San Diego, California, March 2014
Charles Fumito Taketa Memorial Seminar, University of Wisconsin, April 2014
Radcliffe Seminar, Harvard University, Boston, Massachusetts, April 2014
Experimental Biology, San Diego, California, April 2014
Gladstone Foundation Retreat, San Francisco, California, May 2014
Association for Psychological Science Symposium, San Francisco, California, May 2014
University of California, Los Angeles, California, June 2014
Glycolmmunology Symposium, San Diego, California, June 2014
Medicine Grand Rounds, Stanford, California, July 2014
SialoGlyco 2014 Meeting, Queensland, Australia, September 2014
Faculty Seminar Series, University of Arkansas, Little Rock, Arkansas, October 2014
SFG & JSCR 2014 Joint Annual Meeting, Honolulu, Hawaii, November 2014
The National Centre for Biological Sciences (NCBS), Bangalore, India, January 2015
Gordon Research Conference on Glycobiology, Lucca, Italy, March 2015
Evolutionary Cell Biology Conference, Ashburn, Virginia, March 2015
Inaugural Meeting: Society for Evolution, Medicine and Public Health, Arizona, March 2015
GGSB Symposium on Human Evolution, Chicago, Illinois, April 2015
GlycCom 2015 Conference, Banff, Alberta, Canada, May 2015

Pint of Science, San Diego, California, May 2015
Mucins in Health and Disease Conference, Cambridge, United Kingdom, July 2015
Symposium in conjunction with UC Workshop on One Health, Davis, California, July 2015
23rd International Glycoconjugate Symposium, Split, Croatia, September 2015
Palomar College Talk, San Marcos, California, November 2015
American Society for Cell Biology Annual Meeting, San Diego, California, December 2015
The National Centre for Biological Sciences (NCBS), Bangalore, India, January 2016
Bangalore International Center, Bangalore, India, January 2016
American Physiological Society Meeting, San Juan, Puerto Rico, February 2016
AAAAI Annual Meeting, Los Angeles, California, March 2016
Inter-PEG Meeting, Bethesda, Maryland, April 2016
Frontiers in Sialic Acid Research Conference, Bad Lauterberg, Germany, April 2016
Veritas Forum, UCSD La Jolla, California, May 2016
Glyco T10 Conference, Toronto, Canada, June 2016
American Society for Primatology/International Primatological Society, Chicago, Illinois, August 2016
Del Mar Foundation, Del Mar, California, September 2016
Introductory Lecture to UCSD Medical Students, La Jolla, California, September 2016
EMBO Workshop: Glycosylation in the Golgi Complex, Vico Equense, IT, October 2016
Sialoglyco 2016 Symposium, Santa Barbara, California, November 2016
Phi Delta Epsilon William Gelfand Distinguished Lecture, UC San Diego, November 2016
Flexner Discovery Lecture, Vanderbilt University Medical Center, March 2017
Willison Lecture in Microbiology and Immunology, University of Michigan, October 2017
Rose/Fahey Lectureship, Clinical Immunology Society, Atlanta, Georgia, April 2019
Arthur K. Parpart Endowed Lectureship, Marine Biological Laboratory, July 2019
Rosalind Kornfeld Lectureship for Lifetime Achievement in Glycobiology, November 2020
John Listinsky Endowed Lectureship in Glycobiology, University of Alabama, Birmingham, Virtual, October 2021

ADVISORY BOARDS:

Advisory Committee, Ludwig Institute of Cancer Research, San Diego, 1996-1998
Scientific Advisory Board, NIH Center in Biomedical Complex Carbohydrates, University of Georgia, 1993-1999
Scientific Advisory Board, Oxford Glycosciences, Oxford, UK, 1993-2001
Scientific Advisory Board, Yerkes Primate Center, 1997-2001
Scientific Advisory Board, Texas Biotech Corp, Inc., 1999-2004
Scientific Advisory Board, GlycoMinds, Inc., 2001-2005
Specialist Advisor, Human Gene Nomenclature Committee, 2001-present
National Advisory Committee, PubMed Central, NLM/NIH, 2003-2006
Scientific Advisory Board, University of Utah Cancer Center, 2003-2008
National Chimpanzee Observatory Working Group, 2005-2011
Member, National Research Council/National Academies Committee on the Importance of Glycomics and Glycosciences, 2012-2013
Specialist Advisor, Vertebrae Gene Nomenclature Committee, 2017-present

OTHER ACTIVITIES:

Chair, MSTP (M.D./Ph.D.) Selection Committee, UCSD SOM, 1990-1992
Chair, Graduate Programs Education Committee, UCSD SOM, 1990-1992
Chair, Selection Committee for new JCI Editor, 1995-1996
Introduced First Fully Open Access Journal: *Journal of Clinical Investigation*, 1996
Invited Participant, NIH AIDS Vaccine Research Committee, 1997
Program Director, NCI Training Program in Cancer Research, UCSD, 1985-1998
Expert Commentator, British Broadcasting Corporation, 1999
Expert Commentator, Discover Channel Canada, 1999
NSF Special Panel on Frontiers in Glycosciences, April 2000
Consultant, San Diego Museum of Man, May 2000
Publications Committee, American Society of Hematology, 1996-2000
Affiliate Faculty, Living Links Center, Emory University, Atlanta, GA, 1998-2000
Member, MSTP (M.D./Ph.D.) Steering Committee, UCSD, 1994-2001
Member, Selection Committee for new JCI Editor, 2000-2001
Oncological Sciences Study Section Boundary Team, CSR, NIH, 2001
Working Group on Glycobiology in Hematologic Diseases, NHLBI, NIH, 2001
Expert Commentator, British Broadcasting Corporation "Beyond the Genome", 2002
Expert Commentator, National Public Radio, Talk of the Nation/Science Friday, 2002
Steering Committee, Consortium for Functional Glycomics, 2001-2002
Chair, Commission for Enhancing Faculty Research Effectiveness, UCSD, 2001-2003
Department of Medicine Committee on Academic Privilege and Tenure, 2001-2003
Expert Commentator, Oregon Public Broadcasting Series "Rediscovering Biology: Human Evolution", 2004
Co-Director, DOM Physician-Scientist Training Pathway, 2002-2005
Expert Commentator, CNN Headline News, 2005
Expert Commentator, NBC Nightly News, 2005
Expert Commentator, British Broadcasting Corporation, March 2005
Expert Commentator, KPBS, San Diego "These Days", August 2005
Expert Commentator, Science Magazine Video "Breakthrough of the Year", 2005
Member, UCSD Graduate Program in Molecular Pathology, 1990-2009
Member, UCSD Institute for Molecular Medicine, 2000-2009
UCSD SOM Institutional Awards Submission Selection Committee, 2001-2009
Biomedical Sciences Graduate Program Membership Committee, 2005-2009
Introduced First Fully Open Access Textbook at NCBI: *Essentials of Glycobiology*, 2009
Section Membership Panel, American Academy of Arts & Sciences, 2006-2011
Member, National Research Council/National Academies Committee on the Importance of Glycomics and Glycosciences, 2012-2013
Co-Author: *Denial: Self-Deception, False Beliefs, and the Origins of the Human Mind* New York: Twelve Books, Hachette, 2013
National Coordinator, Symbol Nomenclature for Glycans, NCBI, 2015-2017
National Coordinator, NHLBI Programs of Excellence in Glycosciences, 2011-2018
Co-Chair, working Group on "Integration of Glycoscience into Bioinformatics and Personalized Medicine", NIH, 2018
Member, UCSD Cancer Center, 1982-present

Member, UCSD Graduate Program in Neurosciences, 1985-present
Member, UCSD Graduate Program in Biomedical Sciences, 1985-present
Member, UCSD Institute for Biomedical Engineering, 1991-present
Member, UCSD Clinical Investigation Institute, 2005-present
Faculty of 1000, 2011-present
Executive Editor, "*Essentials of Glycobiology*" Cold Spring Harbor Laboratory Press, 1st Ed. 1999; 2nd Ed. 2008; 3rd Ed. 2017; 3rd Ed. update -present

PEER REVIEW:

Pathobiochemistry Study Section Member, NIH, 1987-1991
Editorial Board, Journal of Biological Chemistry, 1991-1992
Consulting Editor, Journal of Clinical Investigation, 1998-2006
Consulting Editor, PloS Medicine, 2004-2008
Editorial Board, Glycobiology, 1990-2010
Contributing Editor, Current Protocols in Molecular Biology, 1993-present

MEETING ORGANIZATION:

Session Organizer, The Protein Society Symposium, Seattle, WA, 1989
Session Organizer, American Society for Biochemistry & Molecular Biology, 1990
Vice -Chair, Gordon Research Conference on Glycoproteins and Glycolipids, CA, 1993
Chair, Gordon Research Conference on Glycobiology, Oxnard, CA, 1995
Program Committee, Society for Glycobiology, Boston, 1996
Organizer, The JCI: Seven Decades of Biomedical Science, Washington DC, 1997
Session Organizer, 17th International Congress of IUBMB/ASBMB, San Francisco, CA, 1997
Program Committee, 13th International Symposium on Glycoconjugates, Zurich, 1997
Program Committee, International Carbohydrate Symposium, San Diego, CA, 1998
Program Committee, International Symposium on Sialobiology, Taiwan, 1998
Program Committee, ASCI/AAP Annual Meetings, Chicago, IL, 1999-2000
Physician-Scientist Roundtable and Career Forum, Organizer/Chair Salk Institute/UCSD, "Days of Molecular Medicine" La Jolla, CA, 2002
Program Committee, International Symposium on Glycosyltransferases, Sweden, 2002
Program Committee, XVII International Symposium on Glycoconjugates, India, 2003
ASBMB Annual Meeting, Glycobiology Symposium, Co-Chair, San Diego, CA, 2003
Program Committee, International Symposium on Glycoconjugates, Florence, Italy, 2005
Program Committee, Sialoglycoscience 5th International Conference, 2006
Program Committee, International Symposium on Glycoconjugates, Australia, 2007
Program Committee, Hemostasis Issues in Cancer, Bergamo, Italy, 2007
International Advisory Board, Fourth International Conference on Thrombosis & Hemostasis, 2007
Role of Glycans in Hemostasis, Inflammation and Vascular Biology, Bethesda, MD, 2008
Program Committee, 20th International Glycoconjugates Symposium, Puerto Rico, 2009
Program Committee Sialoglyco 2012, Taipei, Taiwan, 2012
Organizer, Symposium on Evolution of Human Cognition, Pune, India, 2013
Program Committee Sialoglyco 2014, Griffiths University, Australia, 2014

American Academy of Arts and Sciences, Stated Meeting Chair, 2017
Program Committee Sialoglyco 2018, Canada, 2018
Organizing Committee K12 Annual National Consortium Meeting, 2019-present

[Google Scholar](#) Indices (August 2021)

Total Citations: 72,331

h-Index: (median number of citations in total bibliography): 134

i10-Index (number of publications that have had at least ten citations from others): 409

1. Goldkrand, J.W., **Varki, A.**, McClurg, J.E.: Surface tension of amniotic fluid lipid extracts: prediction of pulmonary maturity. *Amer. J. Obstet. Gyn.* 28:591-596, 1977.
2. Goldkrand, J.W., **Varki, A.**, McClurg, J.E.: Rapid prediction of pulmonary maturity by amniotic fluid lipid globule formation. *Obstet. Gyn.* 50:191-196, 1977.
3. **Varki, A.**, Roby, D.S., Watts, H., Zatzuchni, J.: Serum myoglobin in acute myocardial infarction: a clinical study and review of the literature. *Amer. Heart J.* 96:680-688, 1978.
4. **Varki, A.**, Armitage, J.O., Feagler, J.R.: Typhlitis in acute leukemia: successful treatment by early surgical intervention. *Cancer* 43:695-697, 1979.
5. **Varki, A.**, Fritz, J.L., and Davis, R.B.: Effects of cervical dislocation on colony-forming cells in murine marrow culture. *Exp. Hematol.* 7:397-400, 1979.
6. **Varki, A.**, Puthuran, P.: Value of second lumbar puncture in confirming a diagnosis of aseptic meningitis: a prospective study. *Arch. Neurol.* 36:581-582, 1979.
7. Davis, H.D., **Varki, A.**, Heaton, W.A., and Siegel, B.A.: Detection of accessory spleens with indium-111 labelled autologous platelets. *Amer. J. Hematol.* 8:81-86, 1980.
8. **Varki, A.** and Kornfeld, S.: An autosomal dominant gene regulates the extent of 9-O-acetylation of murine erythrocyte sialic acids: a probable explanation for the variation in capacity to activate the alternate complement pathway. *J. Exp. Med.* 152:532-544, 1980.
9. **Varki, A.** and Kornfeld, S.: Identification of a rat liver alpha-N-acetylglucosaminyl phosphodiesterase capable of removing "Blocking" alpha-N-acetylglucosamine residues from phosphorylated high mannose oligosaccharides of lysosomal enzymes. *J Biol Chem.* 255:8398-8401, 1980.
10. **Varki, A.** and Kornfeld, S.: structural studies of phosphorylated high mannose-type oligosaccharides. *J Biol Chem.* 255:10847-10858, 1980.
11. Reitman, M.L., **Varki, A.**, and Kornfeld, S.: Fibroblasts from patients with I-cell Disease and Pseudo-Hurler Polydystrophy are deficient in UDP-N-acetylglucosamine: Glycoprotein N-acetylglucosaminyl-phosphotransferase activity. *J. Clin. Invest.* 67:1574-1579, 1981.
12. **Varki, A.**, and Kornfeld, S.: Purification and characterization of rat liver alpha-N-acetyl-glucosaminyl phosphodiesterase. *J Biol Chem.* 256:9937-9943, 1981.
13. **Varki, A.**, Reitman, M.L., and Kornfeld, S.: Identification of a variant of mucopolipidosis III (Pseudo-Hurler Polydystrophy): a catalytically active N-acetylglucosaminylphosphotransferase that fails to phosphorylate lysosomal enzymes. *Proc. Nat'l. Acad. Sci. U.S.A.*, 78:7773-7777, 1981.
14. **Varki, A.**, Reitman, M.L., Vannier, A., Kornfeld, S., Grubb, J.H., and Sly, W.S.: Demonstration of the heterozygous state for I-cell disease and Pseudo-Hurler Polydystrophy by assay of N-acetylglucosaminyl-phosphotransferase in white blood cells and fibroblasts. *Amer. J. Hum. Gen.* 34:717-729, 1982.
15. Thomas, G.H., Miller, C.S., Toomey, K.E., Reynolds, L.W., Reitman, M.L., **Varki, A.**, Vannier, A., Rosenbaum, K.N., Bias, W.B., Schofield, B.H.: Two Clonal Cell Populations (Mosaicism) in a 46, XY Male with Mucopolipidosis II (I-Cell Disease) - An Autosomal Recessive Disorder. *Amer. J. Hum. Gen.* 34:611-622, 1982.
16. **Varki, A.**, Sherman, W., and Kornfeld, S.: Demonstration of the enzymatic mechanisms of alpha-N-acetylglucosamine-1-phosphodiester N-acetylglucosaminidase (formerly called alpha-N-acetylglucosaminyl phosphodiesterase) and lysosomal alpha-N-acetylglucosaminidase. *Arch. Biochem. Biophys.* 222:145-149, 1983.
17. **Varki, A.** and Kornfeld, S.: The spectrum of anionic oligosaccharides released by endo-beta-N-acetylglucosaminidase H from glycoproteins: structural studies and analysis of interactions with the isolated phosphomannosyl receptor. *J Biol Chem.* 258:2808-2818, 1983.
18. **Varki, A.**, Lottenberg, R., Griffith, R. and Reinhard, E.: The syndrome of idiopathic myelofibrosis: a clinicopathologic review with emphasis on the prognostic variables predicting survival. *Medicine* 62:353-371, 1983.
19. **Varki, A.** and Diaz, S.: A neuraminidase from *Streptococcus sanguis* that can release O-acetylated sialic acids. *J Biol Chem.* 258:12465-12471, 1983.

A. ORIGINAL RESEARCH ARTICLES

20. **Varki, A.** and Diaz, S.: Release and purification of sialic acids from glycoconjugates: methods to minimize the loss and migration of O-acetyl groups. *Anal. Biochem.* 137:236-247, 1984.
21. Cheresh, D.A., **Varki, A.**, Varki, N., Stallcup, W.B., Levine, J., and Reisfeld, R.A.: A monoclonal antibody recognizes an O-acylated sialic acid in a human melanoma-associated ganglioside. *J Biol Chem.* 259:7453-7459, 1984.
22. Cheresh, D.A., Reisfeld, R.A. and **Varki, A.** O-acetylation of disialoganglioside GD3 by human melanoma cells creates a unique antigenic determinant. *Science* 225:844-846, 1984.
23. **Varki, A.** and Diaz, S.: The transport and utilization of acetyl coenzyme A by rat liver Golgi vesicles: O-acetylated sialic acids are a major product. *J Biol Chem.* 260:6600-6608, 1985.
24. Diaz, S. and **Varki, A.**: Metabolic labelling of sialic acids in tissue culture cell lines: methods to identify substituted and modified radioactive neuraminic acids. *Anal. Biochem.* 150:32-46, 1985.
25. Fukuda, M.N., Fukuda, M., Bothner, B., Ramsamooj, P., Dell, A., Tiller, P.R., **Varki, A.** and Klock, J.C.: Structures of sialylated fucosyl polylectosaminoglycans isolated from chronic myelogenous leukemia cells. *J Biol Chem.* 260:12957-12967, 1985.
26. Freeze, H.H. and **Varki, A.**: Endo-Glycosidase F and peptide N-glycosidase F release the great majority of total cellular N-linked oligosaccharides: use in demonstrating that sulfated N-linked oligosaccharides are frequently found in cultured cells. *Biochem. Biophys. Res. Comm.* 140:967-973, 1986.
27. **Varki, A.**, Muchmore, E. and Diaz, S.: A sialic acid-specific O-acetyl-esterase in human erythrocytes: possible identity with Esterase D, the genetic marker of retinoblastomas and Wilson's Disease. *Proc. Nat'l. Acad. Sci. U.S.A.* 83:882-886, 1986.
28. Fukuda, M.N., Dell, A., Tiller, P.R., **Varki, A.**, Klock, J.C., and Fukuda, M.: Structure of a novel sialylated fucosyl lacto-N-nor-hexaosylceramide isolated from chronic myelogenous leukemia cells. *J Biol Chem.* 260:2376-2383, 1986.
29. Muchmore, E. and **Varki, A.**: Selective inactivation of influenza C esterase: a probe for 9-O-acetylated sialic acids. *Science* 236:1293-1295, 1987.
30. Higa, H., Diaz, S., and **Varki, A.**: Biochemical and genetic evidence for distinct membrane-bound and cytosolic sialic acid O-acetyl-esterases: serine-active-site enzymes. *Biochem. Biophys. Res. Comm.* 144:1099-1108, 1987.
31. Muchmore, E., Varki, N., Fukuda, M., and **Varki, A.**: Developmental regulation of sialic acid modifications in rat and human colon. *FASEB J.* 1:229-235, 1987.
32. Roux, L., Holoyda, S., Sundblad, G., Freeze, H.H. and **Varki, A.**: Sulfated N-linked oligo- saccharides in mammalian cells I: Complex-type chains with sialic acids and O-sulfate esters. *J Biol Chem.* 263:8879-8889, 1988.
33. Sundblad, G., Holoyda, S., Roux, L., **Varki, A.** and Freeze, H.H.: Sulfated N-linked oligosaccharides in mammalian cells II: Identification of glycosaminoglycan-like chains attached to complex-type glycans. *J Biol Chem.* 263:8890-8896, 1988.
34. Sundblad G., Sajjji, S., Quaranta, V., Freeze, H.H. and **Varki, A.**: Sulfated N-linked oligo- saccharides in mammalian cells III: Characterization of a 140 kDa pancreatic tumor cell surface glycoprotein with N- and O-sulfate esters on asparagine-linked glycans. *J Biol Chem.* 263:8897-8903, 1988.
35. Higa, H. and **Varki, A.**: Acetyl-coenzyme A: polysialic acid O-acetyltransferase from K1-positive *Esherichia Coli*: the enzyme responsible for the O-acetyl plus phenotype and O-acetyl form variation. *J Biol Chem.* 263:8872-8878, 1988.
36. Diaz, S., Higa, H., Hayes, B.K. and **Varki, A.**: O-acetylation and de-O-acetylation of sialic acids: 7- and 9-O-acetylation of alpha 2,6-linked sialic acids on endogenous N-linked glycans in rat liver Golgi vesicles. *J Biol Chem.* 264:19416-19426, 1989.
37. Higa, H., Butor, C., Diaz, S. and **Varki, A.**: O-acetylation and de-O-acetylation of sialic acids: O-acetylation of sialic acids in the rat liver Golgi apparatus, involving essential histidine and lysine residues: A transmembrane reaction. *J Biol Chem.* 264:19427-19434, 1989.
38. Higa, H., Manzi, A. and **Varki, A.**: O-acetylation and de-O-acetylation of sialic acids: purification, characterization and properties of a glycosylated rat liver esterase specific for 9-O-acetylated sialic acids. *J Biol Chem.* 264:19435-19442, 1989.
39. Hayes, B. and **Varki, A.**: O-Acetylation and de-O-acetylation of sialic acids: Sialic acid esterase of diverse evolutionary origins have serine active sites and essential arginine residues. *J Biol Chem.* 264:19443-19448, 1989.

A. ORIGINAL RESEARCH ARTICLES

40. Muchmore, E.A., Milkowski, M., **Varki, A.** and Diaz, S.: Biosynthesis of N-Glycolylneuraminic acid: the primary site of hydroxylation of N-acetylneuraminic acid is the cytosolic sugar nucleotide pool. **J Biol Chem.** 264:20216-20223, 1989.
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- Shackelford T., Zeigler-Hill V. (eds) *Evolutionary Perspectives on Death. Evolutionary Psychology Springer Cham.* 109-135. 2019.
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202. **Varki, A.** Roland Schauer (1936-2019): A tribute to "Mr. Sialic Acid". *Glycobiology* 30:132-133. 2020.
203. Siddiqui, S.S., Vaill, M., and **Varki, A.** Ongoing selection for a uniquely human null allele of SIGLEC12 in world-wide populations may protect against the risk of advanced carcinomas. *FASEB Bioadv.* 3:278-279. 2021.
204. Dhar, C., Sasmal, A., Diaz, S., Verhagen, A., Yu, H., Li, W., Chen, X., and **Varki, A.** *Are Sialic Acids Involved in COVID-19 Pathogenesis? Glycobiology.* In Press, Online ahead of Print. 2021.

C. INVITED LECTURES and SEMINARS

Gordon Research Conference on Glycoproteins and Glycolipids, New Hampshire, 1980
AFCR/ASCI/AAP Annual Meeting - Joint Plenary Session, 1981
Society for Inherited Metabolic Disease - Annual Meeting, 1981
UCSD Cancer Center, La Jolla, CA, 1981
Institute for Biochemistry, University of Keil, W. Germany, 1983
Department of Biological Chemistry, UCLA, Los Angeles, CA, 1984
Department of Medicine, Stanford University, Palo Alto, CA, 1984
Cancer Research Center, UCSF, San Francisco, CA, 1985
American Society for Biochemistry and Molecular Biology, Houston, TX, 1986
Gordon Research Conference on Glycoproteins and Glycolipids, Santa Barbara, CA, February 1987
UCLA/ICN Conference on Altered Glycosylation in Tumor Cells, Keystone, CO, April 1987
IX International Symposium on Glycoconjugates, Lille, France, July 1987
European Molecular Biology Laboratories, Heidelberg, W. Germany, July 1987
FASEB meeting, Las Vegas, NV, April 1988
International Symposium on Sialic Acids, Berlin, May 1988
New Advances in Molecular Approaches Symposium, UCSD Ctr. for Molecular Genetics, November 1988
La Jolla Cancer Research Foundation, La Jolla, CA, November 1988
UCLA Symposium on Glycobiology, Frisco, CO, January 1989
The Protein Society Symposium, Seattle, WA, July 1989
Society for Complex Carbohydrates, Ann Arbor, MI, October 1989
San Diego State University, CA, October 1989
2nd Int'l Symp. on Biochem. Roles of Eukaryotic Cell Surface Macromolecules; New Delhi, January 1990
Washington University School of Medicine, St. Louis, MO, March 1990
Johns Hopkins University School of Medicine, Baltimore, MD, May 1990
Massachusetts General Hospital, Boston, MA, May 1990
Symposium on the Biochemistry and Molecular Biology of Complex Carbohydrates, Complex Carbohydrate Research Center, Athens, GA, May 1990
MGH Cancer Center, Boston, MA, May 1990
American Society for Biochemistry and Molecular Biology, New Orleans, LA, June 1990
Gordon Research Conference on Proteoglycans, Andover, NH, July 1990
Penn State University, PA, November 1990
San Francisco State University, CA, November 1990
Mitsubishi Kasei Institute of Life Sciences, Tokyo, Japan, December 1990
Institute of Medical Science, University of Tokyo, Tokyo, Japan, December 1990
Tokyo Metropolitan Institute, Tokyo, Japan, December 1990
Gordon Research Conference on Glycoproteins and Glycolipids, Ventura, CA, February 1991
Oklahoma Center of Molecular Medicine, University of Oklahoma Health Science Center, April 1991
GlycoMed Corporation, Oakland, CA, April 1991
University of New Mexico, Department of Biochemistry, Albuquerque, NM, May 1991
International Society for Complex Carbohydrates, Toronto, Canada, July 1991
Oxford GlycoSystems Seminars; La Jolla, CA, December 1991
Albert Einstein College of Med., Departments of Biochemistry & Pharmacology, New York, January 1992
Howard Hughes Medical Institute, University of Michigan, Ann Arbor, MI, January 1992
McGill University, Department of Biochemistry, Montreal, Canada, January 1992
Keystone Symposium - Glycobiology II, Park City, UT, March 1992

C. INVITED LECTURES and SEMINARS

International Conference on Biorecognition, Montreal, Canada, June 1992
National Institutes of Health, Bethesda, MD, June 1992
International Symposium on Polysialic Acids, Rigi-Kaltbad, Switzerland, August 1992
Amgen Inc., Thousand Oaks, CA, September 1992
Society for Complex Carbohydrates Annual meeting, Nashville, TN, November 1992
University of Washington, Seattle, WA, November 1992
Scripps Research Institute, La Jolla, CA, November 1992
Gordon Research Conference on Glycoproteins and Glycolipids, Ventura, CA, February 1993
Society for Inherited Metabolic Diseases, Asilomar, CA, March 1993
Oxford Glycosystems, Abington, United Kingdom, April 1993
University of Alabama, Birmingham, AL, May 1993
8th Rinshoken International Conference, Shibuya, Tokyo, Japan, September 1993
Glycobiology: New Perspectives on Human Disease, Bethesda, MD, September 1993
Latta Memorial Lectureship, University of Nebraska, Omaha, NE, November 1993
Cell Adhesion Molecules Symposium, Cambridge Health Institute, San Diego, CA, December 1993
University of Texas at Houston, Houston, TX, February 1994
Texas Biotechnology Corporation, Houston, TX, February 1994
John Wayne Cancer Institute, Santa Monica, CA, March 1994
American Association for Cancer Research, San Francisco, CA, April 1994
Jacque Monod Conference, French Riviera, April 1994
Glycotechnology Conference, Cambridge Healthtech Institute, La Jolla, CA, May 1994
Biomedical Research Centre, University of British Columbia, Vancouver, BC, June 1994
Nexagen, Boulder, CO, August 1994
Oxford University, Oxford, UK, September 1994
DNAX Research Institute, Palo Alto, CA, October 1994
Gordon Research Conference on Glycobiology (Chair), Oxnard, CA, February 1995
The Scripps Research Institute, La Jolla, CA, February 1995
Bristol-Myers Squibb Pharmaceutical Research Institute, Princeton, NJ, April 1995
New England Biolabs, Beverly, MA, April 1995
Glyco XIII, International Symposium on Glycoconjugates, Seattle, WA, August 1995
Swedish Society of Biochemistry and Molecular Biology, Linkoping, Sweden, September 1995
American Chemical Society, San Diego, CA, October 1995
American Society of Nephrology, Coronado, CA, November 1995
Pfizer Central Research, Groton, CN, November 1995
Yale University SOM, Cell Biology Department, New Haven, CN, November 1995
San Diego Area Cell Biology Meeting, April 1996
Mount Sinai Hospital, University of Toronto, Canada, May 1996
SUNY at Stony Brook, Long Island, NY, May 1996
University of Keil, Germany, November 1996
University of Marburg, Germany, November 1996
4th International Glycoimmunology Meeting, Athens, Greece, November 1996
Society for Glycobiology, Boston, MA, November 1996
American Society for Cell Biology /6th International Congress on Cell Biology, (Plenary Session), San Francisco, CA, December 1996
Gordon Research Conference on Glycobiology, CA, February 1997

C. INVITED LECTURES and SEMINARS

Faculty Distinguished Lecturer, UCSD, La Jolla, California, February 1997
International Symposium on Glycosyltransferases, Osaka, Japan, March 1997
The University of Texas Southwestern Medical Center, Dallas, Texas (University Lecturer) April 1997
The Journal of Clinical Investigation: Seven Decades of Biomedical Science (Organizer/Speaker)
Washington DC, April 1997
The Scripps Research Institute, La Jolla, CA, May 1997
Yerkes Primate Center, Emory University, Atlanta, GA, May 1997
Gordon Research Conference on Carbohydrates, Tilton, New Hampshire, June 1997
Lecturer XIV International Symposium on Glycoconjugates, Tokyo, August 1997
17th International Congress of IUBMB/ASBMB (Symposium Chair) San Francisco, California, August 1997
13th International Symposium on Glycoconjugates (Glyco XIII Lecture), Switzerland, September 1997
Complex Carbohydrate Research Center, University of Georgia, Athens, Georgia, September 1997
Program Committee, International Carbohydrate Symposium, San Diego, California, 1998
University of California, Davis, Davis, CA, January 1998
Molecular Biology Institute, La Jolla, CA, January 1998
San Diego Glycobiology Symposium, January 1998
4th International DUODECIM Symposium, Finland, June 1998
Gordon Research Conference on Proteoglycans, Andover, New Hampshire, July 1998
17th International Cancer Congress IUCC, Rio de Janeiro, Brazil
University of Munich, Munich, Germany, October 1998
International Symposium on Sialobiology, Taiwan, November 1998
Aichi Cancer Center International Symposium, Nagoya, Japan, November 1998
Shizuoka Forum on Health and Longevity, Shizuoka, Japan, December 1998
Tokyo Metropolitan Institute of Science, Tokyo, Japan, December 1998
San Diego Glycobiology Symposium, January 1999
Gordon Research Conference on Glycobiology, Ventura, CA, February 1999
Immunex Corporation, Seattle, WA, March 1999
ASCI/AAP Joint meeting (Presidential Address), April 1999
15th International Symposium on Glycoconjugates, Tokyo, August 1999
Xiangshan Science Conference; Glycoconjugates & Human Health, Beijing, China, September 1999
Society for Glycobiology San Francisco, CA, November 1999
San Diego Glycobiology Symposium, January 2000
University of New Mexico, Albuquerque, February 2000
Johns Hopkins University School of Medicine, Baltimore, MD, March 2000
National Human Genome Research Institute/National Institute of Health, Bethesda, MD, March 2000
Genzyme Inc., Boston, MA, March 2000
Banbury Center Conference on "Great Apes: Phenotypes and Genotypes", (Chair/speaker) Cold Spring
Harbor, NY, March 2000
American Chemical Society, San Francisco, March 2000
American Society for Physical Anthropology, April 2000
NSF Special Panel on Frontiers in Glycosciences, April 2000
2nd International Glycosyltransferase Symposium, Toronto, Canada, May 2000
Medical Grand Rounds, UCSD School of Medicine, May 2000
UCSD School of Medicine Faculty Distinguished Lecture, May 2000
NIH Workshop on Tumor Microenvironment, Bethesda, MD, September 2000

C. INVITED LECTURES and SEMINARS

SIMEC2000, International Symposium on Extracellular Matrix, Rio de Janeiro, Brazil, September 2000
American Society of Human Genetics, Philadelphia, PA, October 2000
Glycoconjugates in Biological Systems (GLIBS), Tammsvik, Sweden, October 2000
Mathers Foundation, New York, November 2000
Society for Glycobiology, Boston, MA, November 2000
Christian Medical College and Hospital, Vellore, India, December 2000
San Diego Glycobiology Symposium, January 2001
Primate Genomics Workshop, Seattle, WA, January 2001
Gordon Research Conference on Glycobiology, Ventura, CA, March 2001
GEMINI Conference, Tokyo, Japan, March 2001
University of Arkansas, Little Rock, AK, May 2001
Immunogen Inc., Boston, MA, May 2001
University of Michigan, Ann Arbor, MI, May 2001
American Genetic Association, San Diego, May 2001
General Motors Cancer Research Conference, National Institutes of Health, June 2001
Gordon Conference on Human Molecular Genetics, Rhode Island, August 2001
Medical Grand Rounds, UCSD School of Medicine, September 2001
NHLBI, NIH, Washington, DC, September 2001
Orthopedic Hospital, UCLA, Los Angeles, CA, November 2001
San Diego Glycobiology Symposium, January 2002
Christian Medical College and Hospital, Vellore, India February 2002
MIT Department of Bioengineering, Boston, MA, March 2002
Cell Culture Engineering Conference, Snowmass, CO, March 2002
Nature Medicine/UCSD IMM "Days of Molecular Medicine" Conference, La Jolla, CA, March 2002
American Association for Cancer Research, San Francisco, CA, April 2002
Bioastronomy 2002: "Life Among the Stars", Hamilton Island, Australia, July 2002
3rd Pan-Pacific Conference on Sialoglycoscience, Brisbane, Australia, July 2002
3rd International Glycosyltransferase Symposium, Djuronaset, Stockholm, Sweden, September 2002
American Society for Mass Spectrometry, Asilomar, October 2002
Washington University, St. Louis, Division of Hematology-Oncology, October 2002
17th International Symposium on Glycoconjugates, Bangalore, India, January 2003
Indian Institute for Chemical Biology, Kolkata, India, January 2003
L.V. Prasad Eye Institute, Hyderabad, India, January 2003
Lecturer, Centre for DNA Diagnostics & Centre for Cell and Molecular Biology, India, January 2003
Christian Medical College, Vellore, India, January 2003
San Diego Glycobiology Symposium, February 2003
Gordon Research Conference on Glycobiology, Ventura, CA, March 2003
Stein Institute for Research on Aging, UCSD, March 2003
Richard Winzler lecturer, Florida State University, Tallahassee, FL, April 2003
American Association for Cancer Research, Toronto, Canada, April 2003
Co-Chair American Society for Biochemistry and Molecular Biology, San Diego, April 2003
Johns Hopkins University School of Medicine, Department of Biological Chemistry, Baltimore, April 2003
New York Blood Center, New York, April 2003
University of Wisconsin at Madison, Graduate Student Invited Lecturer, June 2003

C. INVITED LECTURES and SEMINARS

19th International Congress of Genetics, Melbourne, Australia, July 2003
Department of Medicine, Case Western Reserve School of Medicine, August 2003
Department of Biochemistry, Case Western Reserve School of Medicine, August 2003
Department of Genome Sciences, University of Washington, Seattle, WA, October 2003
UCSD Cancer Center Seminar, La Jolla, CA, October 2003
National Center for Biological Sciences, Bangalore, India, December 2003
Damodaran Memorial Lectures, University of Kerala, Trivandrum, India, January 2004
Genome Institute of Singapore, January 2004
National Glycobiology Laboratory of Korea, January 2004
San Diego Glycobiology Symposium, February 2004
Fermi National Accelerator Laboratories, March 2004
Department of Genetics, University of Chicago, March 2004
San Diego Supercomputer Center, April 2004
“Genomes and Evolution” Penn State University, Hershey, PA, June 2004
29th FEBS Meeting, Warsaw, Poland, June 2004
American Association of Physicians of Indian Origin, San Diego, CA, June 2004
22nd International Carbohydrate Symposium, Glasgow, Scotland, July 2004
4th International Symposium on Sialobiology, St. Andrews, Scotland, July 2004
Glycoforum Lecturer, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, September 2004
Universitat Pompeu Fabra (UPF), Barcelona, Spain, September 2004
International Symposium on Thromboembolism, Barcelona, Spain, September 2004
New Horizons 2004, Council for the Advancement of Science Writing, Arkansas, November 2004
Tata Institute for Fundamental Research, Mumbai, India, November 2004
Indian Institute of Technology Madras, Chennai, India, November 2004
5th HUGO Pacific Meeting & 6th Asia Pacific Conference on Human Genetics, Singapore, November 2004
Society for Glycobiology, Honolulu, HI, November 2004
San Diego Glycobiology Symposium, January 2005
UCSD All Grad Symposium, Keynote Speaker, January 2005
UC Davis Cancer Center, Sacramento, CA, February 2005
PRISM invited Lecture, UCSD, La Jolla, CA, February 2005
Gordon Research Conference on Glycobiology (Session Chair), Ventura, CA, March 2005
American Academy of Allergy Asthma and Immunology, San Antonio, TX, March 2005
Foundation for the Future, Bellevue, WA, March 2005
UCSD Medical Center Biomedical Seminar Series, March 2005
“Evolution, Form and Function” (Bio5/MCB Symposium), University of Arizona, Tucson, AZ, April 2005
Association of Scientists of Indian Origin, San Diego, CA, April 2005
American Society for Biochemistry and Molecular Biology, San Diego, CA, April 2005
Washington University in St. Louis, Department of Genetics, Missouri, May 2005
Washington University in St. Louis, Division of Hematology-Oncology, Missouri, May 2005
San Francisco State University, May 2005
Association for Women in Science, La Jolla, CA, May 2005
American Society for Primatology, Portland, OR, August 2005
Summer Training on Aging Research Topics, La Jolla, CA, August 2005
18th International Symposium on Glycoconjugates, Florence, Italy, September 2005

C. INVITED LECTURES and SEMINARS

Wenner-Gren Lecture, Stockholm University, Sweden, September 2005
International Conference on Thrombosis and Hemostasis, Bergamo, Italy, October 2005
NIH Center in Biomedical Complex Carbohydrates, University of Georgia, November 2005
San Diego Glycobiology Symposium, January 2006
Rebecca & John Moores Cancer Center UCSD, February 2006
Medical Grand Rounds, UCSD School of Medicine, February 2006
NCI Early Diagnosis Research Network, Philadelphia, PA, March 2006
Keynote Speaker, GCRC 35th Anniversary Celebrations, Mayo Clinic, Rochester, Minnesota, March 2006
Symposium on Interdisciplinary Translational Glycobiology, Biodesign Institute, Arizona State University, May 2006
Workshop on Multiscale Interactions & Dynamics in Biological Systems, Center for Computational Biology & Institute for Complex and Adaptive Matter, Washington University in St. Louis, May 2006
UCSD Summer Research Program Seminar, July 2006
4th Summer Symposium on Functional Glycomics, Hamamatsu, Japan, August 2006
Sialoglycoscience 5th International Conference, Mishima, Japan, August 2006
Frontiers in Glycomics: Bioinformatics and Biomarkers in Disease, NIH, Maryland, September 2006
Glycoscience in Cancer: Progress & Potential, NIH, Frederick, Maryland, September 2006
Chimpanzees in Research: A Vital Resource for Medical Advancement, Yerkes National Primate Center, Atlanta, GA, October 2006
American Society of Human Genetics (Distinguished Speakers Symposium), New Orleans, October 2006
National Academy of Sciences Sackler Colloquium on "The New Comparative Biology of Human Nature", Irvine, CA, November 2006
Department of Pathology and Laboratory Medicine, University of California, Irvine, December 2006
Indian Institute of Technology, Madras, India, January 2007
5th Winter Symposium, CMC, Vellore, India, January 2007
San Diego Glycobiology Symposium, January 2007
Gordon Research Conference: Cell Biology of Megakaryocytes & Platelets, Ventura, CA, March 2007
Gordon Research Conference: Glycobiology, Ventura, CA, March 2007
Department of Biochemistry, Emory University, Atlanta, Georgia, March 2007
Center for Molecular Medicine and Department of Immunology and Microbiology, Wayne State University, Detroit, MI, April 2007
Annual Meeting of the American Physician-Scientists Association, Chicago, IL, April 2007
Medical Microbiology and Immunology, University of California, Davis, April 2007
10th Annual Conference on Vaccine Research, Baltimore, MD, April 2007
9th International Meeting on Carcinoma Associated Mucins, Cambridge, UK, July 2007
Graduate Students Invited Lecture, Hutchinson/MRC Cancer Center, Cambridge University, UK, July 2007
19th International Symposium on Glycoconjugates (GLYCO XIX), Cairns, Australia, July 2007
Duke-NUS Graduate Medical School Singapore (GMS), The Republic of Singapore, July 2007
National University of Singapore, Office of Life Sciences (OLS) Distinguished Lecture, Singapore, July 2007
Alliance of Glycobiologists for Detection of Cancer and Cancer Risk, Rockville, MD, August 2007
5th Annual RECOMB Satellite Workshop in Comparative Genomics, UC San Diego, September 2007
Glycoconjugates in Biological Systems, Glyco-immunology course, Söderköping, Sweden, October 2007
Endocrine Grand Rounds, University of California, San Diego, October 2007
Pediatric Grand Rounds, University of California, San Diego, November 2007
Department of Biochemistry and Molecular Biology, Louisiana State University, Baton Rouge, LA, November 2007

C. INVITED LECTURES and SEMINARS

Workshop: Glycosylation & Development, European Molecular Biology Org., France, December 2007
6th Winter Symposium, CMC, Vellore, India, January 2008
Indian Institute of Technology, Madras, India, January 2008
8th International Symposium on Biochemical Roles of Eukaryotic Cell Surface Macromolecules, Centre for Cellular and Molecular Biology, Hyderabad, India, January 2008
National Centre for Biological Sciences, Bangalore, India, January 2008
Academica Sinica, Taipei, Taiwan, January 2008
San Diego Glycobiology Symposium, February 2008
12th Symposium in the Biochemistry, Cell and Development Program, Emory University, GA, April 2008
Primate Genomics and Human Disease: 3rd International Conference on Primate Genomics, University of Washington, Seattle, WA, April 2008
Evolutionary Medicine: The Interface between Evolutionary Biology and Human Medicine, Yale University School of Medicine, New Haven, CT, April 2008
Burnham Institute for Medical Research Cancer Center Seminar Series, La Jolla, CA, April 2008
Evolution Matters Lecture Series, San Diego Museum of Natural History, April 2008
10th Annual Perspectives on Science Lecture, Pt. Loma Nazarene University, CA, May 2008
Digestive Disease Week, Gastroenterological Association's Ethics Committee, San Diego, May 2008
108th Annual General Meeting, American Society for Microbiology, Boston, MA, June 2008
Hematology Division Grand Rounds, USC Medical Center, Los Angeles, CA, June 2008
33rd Annual Federation of European Biochemical Societies, Athens, Greece, June 2008
11th Annual International Union of Biochemistry and Molecular Biology, Athens, Greece, June 2008
Afternoon Scholars Senior Monday Program, Reuben H. Fleet Science Ctr, San Diego, CA, July 2008
Sialoglycobiology Conference 2008, Moscow – St. Petersburg, Russia, July 2008
Scientific Seminar Series, Buck Institute for Age Research, Novato, CA, October 2008
Department of Physiology and Biophysics, University of California, Irvine, CA, October 2008
Veteran's Administration Fellow Group, Moores Cancer Center, UCSD, CA, October 2008
Chemical and Biological Aspects of Inflammation and Cancer, American Association for Cancer Research, Oahu, Hawaii, October 2008
Human Development Program, University of California, San Diego, CA, November 2008
HHMI Seminar Series, Children's Hospital of Philadelphia, Philadelphia, PA, November 2008
50th Annual American Society of Hematology Meeting and Exposition, San Francisco, CA, December 2008
Cancer Therapeutics Training (CT2) Program Lecture, Moores Cancer Center, UCSD, CA, December 2008
EMBO Workshop on Glycosylation & Development, Committee Chair and Speaker, Lille, France, December 2008
University of Hong Kong, Pokfulam, Hong Kong, January 2009
Christian Medical College, Vellore, India, January 2009
Indian Institute of Technology, Madras, India, January 2009
Division of Social Sciences Darwin's Bicentennial Seminar, University of California, CA, January 2009
Darwin's Evolution Revolution, NIH, Bethesda, MD, February 2009
San Diego Glycobiology Symposium, March 2009
Osher Lifelong Learning Institute, University of California, San Diego, CA, March 2009
Symposium Celebrating the Darwin Bicentennial, Washington University in St. Louis, March 2009
Frontiers in Genomics of the National University of Mexico, Cuernavaca, April 2009
12th Annual Lectureship of the Institute of Cell and Developmental Biology and the Department of Biochemistry and Cell Biology, Stony Brook University, Stony Brook, NY, April 2009
Department of Medicinal Chemistry Seminar Series, University of Utah, Salt Lake City, Utah, May 2009

C. INVITED LECTURES and SEMINARS

Dean's Distinguished Seminar Series 2008-2009, University of Colorado at Denver and Health Sciences Center, Denver, Colorado, May 2009

Medical Grand Rounds, University of Pennsylvania, Philadelphia, PA, June 2009

Medical Grand Rounds, Stanford University, Palo Alto, CA, July 2009

Irwin Goldstein Lectureship in Glycobiology, Department of Biological Chemistry, University of Michigan, Ann Arbor, MI, September 2009

NHLBI Biomedicine Lecture Series, Bethesda, MD, September 2009

29th Annual Japanese Carbohydrate Symposium, Takayama City, Japan, September 2009

Towards Systems Glycobiology 3, Nagoya University, Nagoya, Japan, October 2009

Organelle Network Biology Seminar Series, Osaka University, Osaka, Japan, October 2009

Biodiversity & Evolution, From Genome to Ecosystem Seminar, Kyoto University, Japan, October 2009

82nd Annual Meeting of the Japanese Biochemical Society, Kobe, Japan, October 2009

Primate Research Institute of Kyoto University, Inuyama Campus, Inuyama, Japan, October 2009

IB Conference on Biomembranes 2009, Utrecht University, Utrecht, The Netherlands, October 2009

Pathology Research Lecture Series, University of California, San Diego, CA, November 2009

Merieux-Alliance, Annecy, France, November 2009

Nestle Research Center, Lausanne, Switzerland, November 2009

20th International Symposium on Glycoconjugates (GLYCO XX), San Juan, Puerto Rico, December 2009

In the Light of Evolution (ILE) IV: The Human Condition, the Beckman Center of the National Academy of Sciences, Irvine, CA, December 2009

Alliance of Glycobiologists, National Cancer Institute, Palo Alto, CA, January 2010

Indian Institute of Technology, Madras, India, January 2010

American Association of Physical Anthropologists, Albuquerque, NM, April 2010

Kober Medal Presentation, the ASCI/AAP Joint Meeting, Chicago, IL, April 2010

American Society for Investigative Pathology (ASIP) Experimental Biology, Anaheim, CA, April 2010

American Association of Anatomists (AAA) Experimental Biology, Anaheim, CA, April 2010

Bremer Foundation Lectureship at Nationwide Children's Hospital, Columbus, OH, May 2010

Graduate Student Invited Lecture, Albert Einstein College of Medicine, Bronx, NY, May 2010

Karolinska Institute, Stockholm, Sweden, June 2010

National Cancer Institute, Board of Scientific Advisors Meeting, Bethesda, MD, June 2010

NIH Medical Student Research Training Program, La Jolla, CA, August 2010

Sialoglyco 2010, Potsdam, Germany, August 2010

Current Opinion in Host-Pathogen Biology, Amsterdam, the Netherlands, September 2010

School of Molecular and Biomedical Science, University of Adelaide, Australia, October 2010

Howard Florey Institute, University of Melbourne, Australia, October 2010

Discover for Global Good: Karolinska Institute 200th Anniversary Seminar, Solna, Sweden, October 2010

Society for Glycobiology Annual Meeting, St. Petersburg, FL, November 2010

Merieux-Alliance, Annecy, France, November 2010

Indian Institute of Technology, Madras, India, January 2011

Winter Symposium, Department of Child Health, Christian Medical College, Vellore, India, January 2011

General Thimayya Memorial Lecture, Bishop Cotton Boys School, Bangalore, India, January 2011

San Diego Glycobiology Symposium, February 2011

6th Georgia Glycoscience Symposium and CFG Workshop, Athens, Georgia, March 2011

Pennsylvania State University College of Medicine, Hershey, PA, April 2011

Spring Seminar, Harvard Medical School / Massachusetts General Hospital, Charlestown, MA, April 2011

C. INVITED LECTURES and SEMINARS

Keynote Lecturer, 7th Annual Graduate Student Symposium, University of Guelph, Houston, TX, April 2011
GI Cancer Research Seminar, University of Texas M.D. Anderson Cancer Center, Houston, TX, April 2011
Glycobiology Gordon Research Conference, Barga, Italy, May 2011
American Association of Immunologists/Society for Glycobiology Symposium, San Francisco, CA, May 2011
American Association of Pharmaceutical Scientists National Conference, San Francisco, May 2011
2nd Charles Richet and Jules Hericourt Workshop, Tours, France, May 2011
Plenary lecturer, ASCB International Meeting on Cell Biology of Pathogens, Sao Paulo, Brazil, August 2011
Plenary Lecturer, 21st International Symposium on Glycoconjugates, Vienna, Austria, August 2011
Salk Institute for Biological Studies, San Diego, CA, September 2011
European Society for Dermatological Research Meeting, Barcelona, Spain, September 2011
31st Naito Conference, Sapporo, Japan, September 2011
University of Queensland Clinical Research Center Seminar, Brisbane, Australia, September 2011
Peter Gallagher Memorial Lecture, Griffith University Institute for Glycomics, Australia, October 2011
Programs for Excellence in Glycosciences (PEG) Meeting, Washington D.C., October 2011
Merieux-Alliance, Annecy, France, October 2011
National Yang-Ming University Immunology Research Center Seminar, Taipei, Taiwan, November 2011
International Conference of Inflammation, Cancer and Metabolic Disorders, National Health Research Institutes, Zhunan, Taiwan, November 2011
Academia Sinica, Taipei, Taiwan, November 2011
Carl V. Moore Memorial Lecture, St. Louis, MO, November 2011
Glycosciences Committee, The National Academies, Washington D.C., January 2012
Indian Institute of Science Education and Research (IISER), Pune, India, February 2012
National Centre for Biological Science, Bangalore, India, February 2012
Keynote Lecturer, Internal Medicine Research Day, University of Iowa, Iowa City, IA, February 2012
Current Biology Seminar Series, Fred Hutchinson Cancer Research Center, Seattle, WA, February 2012
San Diego Glycobiology Symposium, March 2012
European Molecular Biology Organization (EMBO) At the Interface between Cell Biology and Cellular Microbiology Conference, Villars-sur-Ollon, Switzerland, May 2012
Neuroscience Graduate Student Invited Lectureship, UC, San Diego, Lake Arrowhead, CA May 2012
Exploratory Workshop on International Representation of Glycoscience, Madrid, Spain, July 2012
Plenary Lecturer, Sialoglyco 2012, Academia Sinica, Taipei, Taiwan, September 2012
16th Evolutionary Biology Meeting at Marseilles, Marseilles, France, September 2012
European Society for the Study of Human Evolution, Bordeaux, France, September 2012
Mathers Foundation of New York, October 2012
University of Pennsylvania School of Medicine, December 2012
San Diego Glycobiology Symposium, January 2013
Indian Institute of Technology, Madras, India, January 2013
Pondicherry Institute of Medical Studies, Pondicherry, India, January 2013
Center for DNA Diagnostics and Fingerprinting, Hyderabad, India, January 2013
UC Santa Barbara, March 2013
UC San Francisco Program in Pharmaceutical Sciences and Pharmacogenomics, May 2013
Glycoimmunology Symposia, Boston, MA, May 2013
CARTA Symposium, UCSD, La Jolla, CA, May 2013
Plenary Lecturer, Mucins in Health Workshop, Cambridge University, UK, July 2013
Plenary Lecturer, 2nd Latin American Congress of Glycobiology, Mexico City, Mexico, July 2013

C. INVITED LECTURES and SEMINARS

14th European Meeting on Complement in Human Diseases, Germany, August 2013
Primate Behavioral Genetics, Cold Spring Harbor, New York, September 2013
Biomedical Engineering Society, San Diego, CA, September 2013
Osher Lifelong Learning Institute, San Diego, CA, October 2013
American Society for Aesthetics, San Diego, CA, October 2013
Danny Brower Memorial Seminar, Tucson, AZ, November 2013
IISER Symposium on The Evolution of Human Cognition, Pune, India, November 2013
Wellcome Trust/DBT India Alliance Public Lecture Series, Mumbai, India, November 2013
International Carbohydrate Symposium (ICS) 27, Bangalore India, January 2014
Wellcome Trust/DBT Alliance Public Lecture, Hyderabad, India, January 2014
IUBMB 10th International Symposium on Cell Surface Macromolecules, Kolkata India, January 2014
Wellcome Trust/DBT Alliance Public Lecture, Kolkata, India, January 2014
Tata Memorial Cancer Center, Kolkata, India, January 2014
Wellcome Trust/DBT Alliance Public Lecture, Bangalore, India, February 2014
National Center for Biological Sciences, Bangalore, India, February 2014
UCSD Department of Medicine Grand Rounds, San Diego, CA, March 2014
Pharmaceutical Sciences Departmental Seminar, Irvine, CA, March 2014
Evolutionary Biology and Ecology Departmental Seminar, Irvine, CA, March 2014
Evolution of Modern Humans: From Bones to Genomes, Cell Symposium, Sitges, Spain, March 2014
San Diego Glycobiology Symposium, San Diego, CA, March 2014
Charles Fumito Taketa Memorial Seminar, University of Wisconsin, Milwaukee, WI, April 2014
Radcliffe Seminar, Harvard University, Boston, MA, April 2014
Experimental Biology, San Diego, CA, April 2014
Gladstone Foundation Retreat, San Francisco, CA, May 2014
Association for Psychological Science Symposium, San Francisco, CA, May 2014
University of California, Los Angeles, CA, June 2014
Glycoimmunology Symposium, San Diego, CA, June 2014
Medicine Grand Rounds, Stanford, CA, July 2014
SialoGlyco 2014 Meeting, Queensland, Australia, September 2014
Faculty Seminar Series, University of Arkansas, Little Rock, AR, October 2014
SFG & JSCR 2014 Joint Annual Meeting, Honolulu, HI, November 2014
The National Centre for Biological Sciences (NCBS), Bangalore, India, January 2015
Gordon Research Conference on Glycobiology, Lucca, Italy, March 2015
Evolutionary Cell Biology Conference, Ashburn, VA, March 2015
Inaugural Meeting for the Society for Evolution, Medicine and Public Health, Tempe, AZ, March 2015
GGSB Symposium on Human Evolution, Chicago, IL, April 2015
GlycCom 2015 Conference, Banff, Alberta, Canada, May 2015
Pint of Science, San Diego, CA, May 2015
Mucins in Health and Disease Conference, Cambridge, UK, July 2015
Symposium in conjunction with UC Workshop on One Health, Davis, CA, July 2015
23rd International Glycoconjugate Symposium, Split, Croatia, September 2015
Palomar College Talk, San Marcos, CA, November 2015
American Society for Cell Biology Annual Meeting, San Diego, CA, December 2015
The National Centre for Biological Sciences (NCBS), Bangalore, India, January 2016

C. INVITED LECTURES and SEMINARS

Bangalore International Center, Bangalore, India, January 2016
American Physiological Society Puerto Rico branch Meeting, San Juan, PR, February 2016
AAAAI Annual Meeting, Los Angeles, CA, March 2016
University of Colorado at Boulder, Boulder, CO, April 2016
Inter-PEG Meeting, Bethesda, MD, April 2016
Frontiers in Sialic Acid Research Conference, Bad Lauterberg, Germany, April 2016
Veritas Forum, UCSD La Jolla, CA, May 2016
Glyco T10 Conference, Toronto, Canada, June 2016
American Society for Primatology/International Primatological Society Meeting, Chicago, IL, August 2016
Del Mar Foundation, Del Mar, CA, September 2016
Opening Introductory Lecture to UCSD Medical Students, La Jolla, CA, September 2016
EMBO Workshop: Glycosylation in the Golgi Complex, Vico Equense, IT, October 2016
Osher Lifelong Learning Institute, La Jolla, CA, October 2016
CARTA Symposium, La Jolla, CA, October 2016
ARCS Chapter Meeting, La Jolla, CA, October 2016
Sialoglyco Symposium, Santa Barbara, CA, November 2016
Society for Glycobiology Annual Meeting, New Orleans, LA, November 2016
Phi Delta Epsilon William Gelfand Distinguished Lectureship, UC San Diego, November 2016
Department of Medicine Grand Rounds, Yale University, New Haven, Connecticut, December 2016
Department of Microbiology Seminar, Yale University, New Haven, Connecticut, December 2016
Eidgenossische Technische Hochschule, Zurich, Switzerland, December 2016
University of Basel, Basel, Switzerland, December 2016
The National Centre for Biological Sciences, Bangalore, India, January 2017
Flexner Discovery Lecture, Vanderbilt University Medical Center, Nashville, TN, March 2017
International Symposium on Autoimmunity, Beijing, China, April 2017
Beilstein Glyco-Bioinformatics Symposium, Berlin, Germany, June 2017
Interfaces Research Symposium, UCSD, July 2017
Mucins in Health and Disease, Cambridge, United Kingdom, July 2017
Plenary Lecture, 24th International Symposium on Glycoconjugates, Jeju Island, Korea, August 2017
Willison Lecture in Microbiology and Immunology, University of Michigan, October 2017
American Academy of Arts & Sciences Stated, Chair and Speaker, La Jolla, CA, October 2017
The National Centre for Biological Sciences, Bangalore, India, January 2018
Evolutionary Perspectives on Death, Oakland University, Michigan, April 2018
Opening Plenary Lecture, Sialoglyco Symposium, Banff Canada, May 2018
Beilstein Bozen Symposium, Information and Noise: Chemistry, Biology and Evolution Creating Complex Systems, Rudesheim Germany, June 2018
Indian Institute of Technology, Madras, India, August 2018
Plenary Lecture, Benzon Symposium No. 64, Glycotherapeutics, Copenhagen, August 2018
Renaissance Weekend, Invited Speaker, Monterey, August 30, 2018
Department of Biological Chemistry Symposium; Johns Hopkins University, Baltimore, MD, September 2018
San Diego Glycobiology Symposium, San Diego, CA, January 2019
Gordon Research Conference on Glycobiology, Chair and Speaker, Lucca, Italy, March 2019
Rose/Fahey Lectureship Clinical Immunology Society Invited Speaker, Atlanta, GA, April 2019
3rd Argentinian Symposium on Glycobiology, Invited Speaker, Buenos Aires, Argentina, May 2019
Neurosciences Retreat, Invited Speaker, Lake Arrowhead, CA, May 2019

C. INVITED LECTURES and SEMINARS

Arthur K. Parpart Endowed Lectureship University of Chicago, Marine Biological Laboratory, Invited Lecturer, Woods Hole, MA, July 2019

Special Lecture, Distinguished Professor, Indian Institute of Technology, Madras, India, August 2019

Cognitio, Keynote Lecturer, Christian Medical College, Vellore, India, August 2019

Perspectives on Science Lecturer, Point Loma Nazarene University, October 2019

Society for Glycobiology Annual Meeting, Phoenix, AZ, November 2019

National Career Development Consortium for Excellence in Glycosciences, Phoenix, AZ, November 2019

Graduate Agnotology Seminar Guest Speaker, Harvard University, November 2019

The National Centre for Biological Sciences (NCBS), Bangalore, India, December 2019

CARTA Symposium, La Jolla, CA, February 2020

Harvard Department of Nutrition Seminar Series Virtual Lecturer, Boston, MA, April 2020

Foundations of Medicine Keynote Lecturer, UCSD School of Medicine, Virtual, September 2020

Comparative Medicine Lecturer, UCSD Anthropogeny Students, Virtual, October 2020

Rosalind Kornfeld Lifetime Achievement in Glycobiology Awardee & Lecturer, Society for Glycobiology, Virtual, November 2020

2nd National K12 Consortium Meeting, National Speaker, Virtual, January 2021

Primer Debate Conference 2021 Speaker, Virtual, March 2021

ASBMB / Experimental Biology 2021 Expert Speaker & Glycobiology Workshop Speaker, Virtual, April 2021

Sao Paulo School in Glycobiology, Glycobiology Workshop Speaker, Virtual, July 2021

Foundations of Medicine Keynote Lecturer, UCSD School of Medicine, Virtual, September 2021

6th Annual Latin American Glycobiology Congress, Keynote Speaker, Virtual, October 2021

John Listinsky Endowed Lectureship in Glycobiology, University of Alabama, Birmingham, Virtual, October 2021

3rd National K12 Consortium Meeting, National Speaker, San Diego, CA, November 2021