

CURRICULUM VITAE

NAME: Pamela Mary Stanley (nee Fetherstonhaugh)

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NATIONALITY: Australian/American

EDUCATION:

1965-1967 Bachelor of Science
University of Melbourne, Australia
Majored in Biochemistry and Microbiology

1968 B. Sc. Hons., Walter and Eliza Hall Institute, Melbourne, Australia
Commonwealth Post-graduate Award
Advisor: Gordon L. Ada
Thesis: Tolerance to Foreign Erythrocytes Using Antigen-Containing Extracts of the Erythrocyte Membrane.

1969-1972 Research for degree of Doctor of Philosophy in the Department of Microbiology, University of Melbourne, Australia
Commonwealth Post-graduate Award
Advisor: Professor David O. White
Thesis: Influenza Virus Proteins

1972-1975 Postdoctoral Fellow of the Medical Research Council of Canada in the Department of Medical Genetics, University of Toronto, Canada
Advisor: Dr. Louis Siminovitch
Postdoctoral Fellowship from the Medical Research Council of Canada
Topic: The Isolation and Characterization of Lectin Resistant Chinese Hamster Ovary Cells.

POSITIONS HELD:

1976 Research Associate
Department of Medical Genetics
University of Toronto
Toronto, Ontario, Canada

1977-1982 Assistant Professor
Dept. of Cell Biology
Albert Einstein College of Medicine
Bronx, New York

1982-1986 Associate Professor
Dept. of Cell Biology
Albert Einstein College of Medicine
Bronx, New York

1986 Professor
Department of Cell Biology
Albert Einstein College of Medicine
Bronx, New York

1994-2007 Director
Training Program in Cell & Molecular Biology, Biochemistry & Genetics, NIGMS

1988-2012 Program leader Membrane Molecular Biology

Albert Einstein Cancer Center

2002- Associate Director for Laboratory Research
Albert Einstein NCI Cancer Center

2007- Horace W. Goldsmith Foundation Chair.

HONORS:

Dunlop Prize for First Place in Biochemistry (1966 and 1967)
Aust. Soc. for Microbiology Prize for Virology (1968)
Commonwealth post-graduate award (1969-1972)
Postdoctoral Fellowship from the Medical Research Council of Canada (1972-1975)
American Cancer Society Faculty Awards (1978-1981 and 1981-1983)
Irma T. Hirschl Faculty Award (1985-1990)
Election to Leo M. Davidoff Society for excellence in teaching (1987)
MERIT Award from the National Cancer Institute, NIH (1991)
Dorothy Baugh Harmon Lectureship, Oklahoma Medical Research Foundation (1997)
Mizutani Awards (2001, 2013)
International Glycoconjugate Organization Award (2003)
Karl Meyer Award, Society for Glycobiology (2003)
Horace W. Goldsmith Foundation Chair (2007)
LaDonne Shulman award for graduate teaching (2009)
Goldstein Lecture, Dept. Biological Chemistry, U. Michigan, Ann Arbor (2010).
Peter Gallagher memorial lecture, Griffith University, Australia (2012)
Mizutani Award (2013)
Marshall Horwitz Faculty Prize for Research Excellence (2014)
WALS lecture, National Institutes of Health (2015)

OTHER PROFESSIONAL ACTIVITIES:

Editorial Board Molecular and Cellular Biology (1980 - 1991).
Co-chair Gordon Conference on Glycoproteins and Glycolipids (1981)
Advisory Committee of Cell and Developmental Biology, American Cancer Society (1981-1985)
Pathobiochemistry Study Section, NIH (1989 -1993)
Editorial Board Glycobiology (1990 -).
Editorial Board Molecular Biology of the Cell (1991 - 1993).
Sabbatical, INSERM U 273, University of Nice, France, (1993 - 1994)
Board of Directors, Society for Glycobiology (1994 -1998)
Director, Cell and Molecular Biology and Genetics Graduate Training Program (1994 -)
Editorial Board Journal of Biological Chemistry, (1995 - 2000)
President, Society of Glycobiology (1997 - 1998)
Society for Glycobiology Awards, Publications committees (1997-)
Neose Technologies scientific advisory board (2001- 2005)
Steering Committee NIGMS Glycomics "Glue" grant (2001-2011)
Program advisor: PO1 grant Burnham Institute, San Diego (1999-2003)
Program advisor: Score grant Hunter College, New York(2005, 2006)
Editorial Board Glycoconjugate Journal (2003 -)
Harvey Society Council, New York (2003-2005)
Intercellular Communications and Interactions study section NIH (2007-2011)
Sabbatical, Bio21, University of Melbourne, Dept. Biochem. and Molec. Biol. (2009-2010)
Visiting Fellow, Ormond College, University of Melbourne, (2009-2010)
ASBMB Theme Organizer, ASBMB annual meeting (2013)
Judge Blavatnik Awards NYAS (2013-)
Editorial Board, Scientific Reports (2015 -)

Societies:

American Association Biological Chemists
American Society for Cell Biology
American Society of Microbiology
Society for Glycobiology

PUBLICATIONS:

- 1) **Fetherstonhaugh, P.** (1970) The Immunogenicity and Tolerance-Inducing Ability of Soluble Extracts of Sheep Red Blood Cell Membranes. *Int. Arch. Allergy* 39:310-322.
- 2) Parish, C.R. and **Stanley, P.** (1972) Chemical and Biological Properties of Bacterial Flagellin Following Iodination and Oxidation by Chloramine-T. *Immunochemistry* 9:853-872.
- 3) **Stanley, P.** and Haslam, E.A (1971) The Polypeptides of Influenza Virus. V. Localization of Polypeptides in the Virion by Iodination Techniques. *Virology* 46:764-773.
- 4) Gandhi, S.S., **Stanley, P.**, Taylor, J.M. and White, D.O. (1972) Inhibition of Influenza Viral Glycoprotein Synthesis by Sugars. *Microbios* 5:41-50.
- 5) **Stanley, P.**, Gandhi, S.S. and White, D.O. (1973) The Polypeptides of Influenza Virus. VII. Synthesis of the Hemagglutinin. *Virology* 53:92-106.
- 6) **Stanley, P.**, Crook, N.E., Streader, L.G. and Davidson, B.E (1973) The Polypeptides of Influenza Virus. VIII. Large-Scale Purification of the Hemagglutinin. *Virology* 56:640-645.
- 7) Juliano, R.L. and **Stanley, P.** (1975) Altered Cell Surface Glycoproteins in Phytohemagglutinin-Resistant Mutants of Chinese Hamster Ovary Cells. *Biochimica et Biophysica Acta* 389:401-406.
- 8) **Stanley, P.**, Caillbot, V. and Siminovitch, L. (1975) Stable Alterations at the Cell Membrane of Chinese Hamster Ovary Cells Resistant to the Cytotoxicity of Phytohemagglutinin. *Somatic Cell Genetics* 1:3-26.
- 9) **Stanley, P.**, Narasimhan, S., Siminovitch, L. and Schachter, H. (1975) Chinese Hamster Ovary Cells Selected For Resistance to the Cytotoxicity of Phytohemagglutinin are Deficient in a UDP-N-Acetylglucosamine: Glycoprotein N-acetylglucosaminyltransferase Activity. *Proc. Natl. Acad. Sci.* 72:3323-3327.
- 10) **Stanley, P.**, Caillbot, V. and Siminovitch, L. (1975) Selection and Characterization of Eight Phenotypically Distinct Lines of Lectin-resistant Chinese Hamster Ovary Cells. *Cell* 6:121-128.
- 11) **Stanley, P.** and Siminovitch, L. (1976) Selection and Characterization of Chinese Hamster Ovary Cells Resistant to the Cytotoxicity of Lectins. *In Vitro* 12:208-215.
- 12) **Stanley, P.** and Siminovitch, L. (1977) Complementation Between Mutants of CHO Cells Resistant to a Variety of Plant Lectins. *Som. Cell Gen.* 3:391-405.
- 13) Narasimhan, S., **Stanley, P.** and Schachter, H. (1977) Control of Glycoprotein Synthesis. Lectin-Resistant Mutant Containing Only One of Two Distinct N-acetylglucosaminyltransferase Activities Present in Wild Type Chinese Hamster Ovary Cells. *J. Biol. Chem.* 252:3926-3933.
- 14) **Stanley, P.** and Carver, J.P. (1977) Lectin Receptors and Lectin Resistance in Chinese Hamster Ovary Cells. *Adv. in Exptl. Med. and Biol.* 84:265-282.
- 15) **Stanley, P.** and Carver, J.P. (1977) Selective Loss of Wheat Germ Agglutinin (WGA) Binding Sites on WGA-Resistant Mutants of CHO Cells. *Proc. Natl. Acad. Sci.* 74:5056-5059.
- 16) Robertson, M.A., Etchison, J.R., Robertson, J.S., Summers, D.F. and **Stanley, P.** (1978) Specific Changes in the Oligosaccharide Moieties of VSV Grown in Different Lectin-Resistant CHO Cells. *Cell* 13:515-526.

- 17) **Stanley, P.** and Carver, J.P. (1978) Binding of ^{125}I -Wheat Germ Agglutinin to Chinese Hamster Ovary Cells Under Conditions Which Affect Membrane Mobility. *J. Cell Biol.* 79:617-622.
- 18) **Stanley, P.** (1980) Altered Glycolipids of CHO Cells Resistant to Wheat Germ Agglutinin. *ACS Symposium Series* 128:213-221.
- 19) **Stanley, P.**, Sudo, T. and Carver, J.P. (1980) Differential Involvement of Cell Surface Sialic Acid Residues in Wheat Germ Agglutinin Binding to Parental and Wheat Germ Agglutinin - Resistant Chinese Hamster Ovary Cells. *J. Cell Biol.* 85:60-69.
- 20) **Stanley, P.** and Sudo, T. (1981) Microheterogeneity Among Carbohydrate Structures at the Cell Surface May be Important in Recognition Phenomena. *Cell* 23:763-769.
- 21) **Stanley, P.** (1981) Selection of Specific Wheat-Germ Agglutinin-Resistant (Wga^R) Phenotypes from Chinese Hamster Ovary Cell Populations Containing Numerous *lec*^R Genotypes. *Mol. Cell. Biol.* 1:687-696.
- 22) **Stanley, P.** (1982) Carbohydrate Heterogeneity of Vesicular Stomatitis Virus G Glycoprotein Allows Localization of the Defect in a Glycosylation Mutant of CHO Cells. *Arch. Biochem. Biophys.* 219: 128-139.
- 23) **Stanley, P.** (1983). Lectin-Resistant CHO Cells: Selection of New Mutant Phenotypes. *Somatic Cell Genetics* 9:593-608.
- 24) Campbell, C. and **Stanley, P.** (1983) Regulatory Mutations in CHO Cells Induce the Expression of the Mouse Embryonic Antigen, SSEA-I. *Cell* 35:303-309.
- 25) **Stanley, P.**, Vivona, G. and Atkinson, P.H. (1984) ^1H -NMR Spectroscopy of Carbohydrates from the G Glycoprotein of VSV Grown in Parental and Lec4 CHO Cells. *Arch. Biochem. Biophys.* 230:363-374.
- 26) Draber, P. and **Stanley, P.** (1984) Cytotoxicity of Plant Lectins for Mouse Teratocarcinoma Cells. *Somatic Cell and Molecular Genetics* 10:435-443.
- 27) Draber, P. and **Stanley, P.** (1984) Selection and Partial Characterization of Lectin-Resistant F9 Teratocarcinoma Cells. *Somatic Cell and Molecular Genetics* 10:445-454.
- 28) Campbell, C. and **Stanley, P.** (1984) The CHO Glycosylation Mutants LEC11 and LEC12 Express Two Novel GDP-Fucose: *N*-acetylglucosaminide 3- α -L-Fucosyltransferase Enzymes. *J. Biol. Chem.* 259:11208-11214.
- 29) Campbell, C. and **Stanley, P.** (1984) A Dominant Mutation to Ricin-Resistance in CHO Cells Induces UDP-GlcNAc Glycopeptide *N*-Acetyl-glucosaminyltransferase III Activity. *J. Biol. Chem.*, 261:13370-13378.
- 30) Deutscher, S.L., Nuwayid, N., **Stanley, P.** and Hirschberg, C.B. (1984) Translocation across Golgi membranes. A CHO glycosylation mutant deficient in CMP-sialic acid transport. *Cell* 39:295-299.
- 31) **Stanley, P.** (1985) Membrane Mutants of Animal Cells: Rapid Identification of Those with a Primary Defect in Glycosylation. *Molec. Cell. Biol.* 5:923-929.
- 32) **Stanley, P.** and Chaney W. (1985) Control of Carbohydrate Processing: the *lec1A* CHO Mutation Results in Partial Loss of *N*-Acetylglucosaminyltransferase I Activity. *Molec. Cell. Biol.* 5:1204-1211.

- 33) Ripka, J. and **Stanley, P.** (1986) Lectin-Resistant CHO Cells: Selection of Four New Pea Lectin-Resistant Phenotypes. *Som. Cell Molec. Genet.* 12:51-62.
- 34) Ripka, J., Shin, S-I. and **Stanley, P.** (1986) Decreased Tumorigenicity Correlates With expression of Altered Carbohydrates in Lec9 CHO Cells. *Mol. Cell. Biol.* 6:1268-1275.
- 35) Chaney, W.G., Howard, D.R., Pollard, J.W., Sallustio, S. and **Stanley, P.** (1986) High-Frequency Transfection of CHO Cells Using Polybrene. *Som. Cell. Molec. Genet.* 12:237-244.
- 36) Chaney, W. and **Stanley, P.** (1986) Lec1A Chinese Hamster Ovary Cell Mutants Appear to Arise From a Structural Alteration in *N*-acetyl-glucosaminyltransferase I. *J. Biol. Chem.* 261:10551-10557.
- 37) Ripka, J., Adamany, A. and **Stanley, P.** (1986) Two Chinese Hamster Ovary Glycosylation Mutants Affected in the Conversion of GDP-mannose to GDP-fucose. *Arch. Biochem. Biosphys.* 249:533-545.
- 38) Howard, D., Fukuda, M., Fukuda, M.N., and **Stanley, P.** (1987) The GDP-fucose: *N*-acetylglucosaminide 3- α -Fucosyltransferases of LEC11 and LEC12 Chinese Hamster ovary Mutants Exhibit Novel Specificities for Glycolipid Substrates. *J. Biol. Chem.* 262:16830-16837.
- 39) **Stanley, P.** and Atkinson, P.H. (1988) The LEC11 Chinese Hamster Ovary Mutant Synthesizes *N*-Linked Carbohydrates Containing Sialylated, Fucosylated Lactosamine Units. Analysis by One- and Two-Dimensional ¹H NMR Spectroscopy. *J. Biol. Chem.*, 263:11374-11381. Erratum (1988) 263, 17203.
- 40) **Stanley, P.** (1989) Chinese Hamster Ovary Cell Mutants with Multiple Glycosylation Defects for the Production of Glycoproteins with Minimal Carbohydrate Heterogeneity. *Mol. Cell. Biol.* 9:377-383.
- 41) Rosenwald, A., **Stanley, P.** and Krag, S. (1989) Control of Carbohydrate Processing. Increased β 1,6-Branching in the *N*-linked Carbohydrates of Lec9 CHO Mutants Appears to Arise from a Defect in Oligosaccharide-Dolichol Synthesis. *Mol. Cell. Biol.* 9:914-924.
- 42) Sallustio, S. and **Stanley, P.** (1989) Novel Genetic Instability Associated with a Developmentally Regulated Glycosyltransferase Locus in Chinese Hamster Ovary Cells. *Som. Cell Mol. Genet.* 15:387-400.
- 43) Ravdin, J.I., **Stanley, P.**, Murphy, C.F., and Petri, W.A. Jr. (1989) Characterization of Cell Surface Carbohydrate Receptors for *Entamoeba histolytica* Adherence lectin. *Infection and Immunity.* 57:2179-2186.
- 44) Chaney, W., Sundaram, S., Friedman, N. and **Stanley, P.** (1989) The Lec4A CHO Glycosylation Mutant Arises from Miscompartmentalization of a Golgi Glycosyltransferase. *J. Cell Biol.* 109:2089-2096.
- 45) Kumar, R. and **Stanley, P.** (1989) Transfection of a Human Gene that Corrects the Lec1 Glycosylation Defect. Evidence for Transfer of the Structural Gene for *N*-acetylglucosaminyltransferase 1. *Mol. Cell Biol.* 9:5713-5717. (Erratum 10:3857, 1990).
- 46) Sallustio, S. and **Stanley, P.** (1990) Isolation of Chinese Hamster Ovary Mutants Differentially Resistant to Ricin, Abrin and Modeccin. *J. Biol. Chem.* 265:582-588.
- 47) Potvin, B., Kumar, R., Howard, D.R., and **Stanley, P.** (1990) Transfection of a Human α (1,3)Fucosyltransferase Gene into Chinese Hamster Ovary cells. Complications arise from Activation of Endogenous α (1,3)Fucosyltransferases. *J. Biol. Chem.* 265:1615-1622.

- 48) **Stanley, P.**, Sallustio, S., Krag, S. and Dunn, B. (1990) Lectin-Resistant CHO Cells. Selection of Seven New Glycosylation Mutants Resistant to Ricin. *Som. Cell Molec. Genet.* 16, 211-223.
- 49) Kumar, R., Yang, J., Larsen, R.D. and **Stanley, P.** (1990) Cloning and expression of *N*-acetylglucosaminyltransferase I - the Medial Golgi transferase that initiates complex *N*-linked carbohydrate formation. *Proc. Natl. Acad. Sci. USA* 87, 9948-9952.
- 50) **Stanley, P.**, Sundaram, S. and Sallustio, S. (1991). A subclass of cell surface carbohydrates revealed by a CHO mutant with two glycosylation mutants. *Glycobiology*, 1, 307-314.
- 51) Kumar, R., Potvin, B., Muller, W. A. and **Stanley, P.** (1991) Cloning of a human $\alpha(1,3)$ Fucosyltransferase gene that encodes ELFT but does not confer ELAM-1 binding on CHO cell transfects. *J. Biol. Chem.* 266, 21777-21783.
- 52) Ray, M., Yang, J., Sundaram, S. and **Stanley, P.** (1991) A Novel Glycosylation Phenotype Expressed by Lec23, a CHO Mutant Deficient in α -Glucosidase I. *J. Biol. Chem.* 266, 22818-22825.
- 53) Potvin, B. and **Stanley, P.** (1991) 5-Azacytidine induces expression of two, apparently novel $\alpha(1,3)$ fucosyltransferase activities in CHO cells. *Cell Regulation*, 2, 989-1000.
- 54) Kumar, R., Yang, J., Eddy, R.L., Byers, M.G., Shows, T.B., and **Stanley, P.** (1992) Cloning and expression of the murine gene and chromosomal location of the human gene encoding *N*-acetyl-glucosaminyltransferase I. *Glycobiology*, 2, 383-393.(Erratum: *ibid* 9 (8) ix (1999).
- 55) Rosenwald, A.G., **Stanley, P.**, McLachlan, K. R. and Krag, S. S. (1993) Mutants in Dolichol Synthesis: Polymenol reductase appears to be a rate-limiting step in the synthesis of dolichol. *Glycobiology*, 3, 481-488.
- 56) Goelz, S., Kumar, R., Potvin, B., Sundaram, S., Brickelmaier, M. and **Stanley, P.** (1994) Differential expression of an E-Selectin ligand (SLe^X) by two CHO cell lines transfected with the same $\alpha(1,3)$ Fucosyl- transferase gene (ELFT). *J. Biol. Chem.*, 269, 1033-1040.
- 57) Ioffe, E. and **Stanley, P.** (1994) Mice lacking *N*-acetylglucosaminyltransferase I activity die at mid-gestation revealing an essential role for complex or hybrid *N*-linked carbohydrates. *Proc. Natl. Acad. Sci. USA*, 91, 728-732.
- 58) Yang, J., Bhaumik, M., Liu, Y. and **Stanley, P.** (1994) Regulation of *N*-linked glycosylation. Neuronal cell-specific expression of a 5' extended transcript from the gene encoding *N*-acetylglucosaminyltransferase I. *Glycobiology*, 4, 703-712.(Erratum: *ibid*, 5, 279, 1995)
- 59) Bhaumik, M., Seldin, M. F. and **Stanley, P.** (1995) Cloning and chromosomal mapping of the mouse *Mgat3* gene encoding *N*-acetylglucosaminyltransferase III. *Gene*, 164, 295-300.
- 60) Ioffe, E., Liu, Y., Bhaumik, M., Poirier, F., Factor, S. and **Stanley, P.** (1995) WW6: An embryonic stem cell line with an inert genetic marker that can be traced in chimeras. *Proc. Natl. Acad. Sci. USA*, 92, 7357-7361.
- 61) Stockert, R. J., Potvin, B., Tao, L., **Stanley, P.** and Wolkoff, A. W. (1995) Human hepatoma cell mutant defective in cell surface protein trafficking. *J. Biol. Chem.*, 270, 16107-16113.
- 62) Raju, T.S., Ray, M.K. and **Stanley, P.** (1995) LEC18: A dominant CHO glycosylation mutant synthesizes *N*-linked carbohydrates with a novel core structure. *J. Biol. Chem.*, 270, 30294-30302.

- 63) Potvin, B., Raju, T. S. and **Stanley, P.** (1995) *lec32*: A new mutation in Chinese Hamster ovary cells that essentially abrogates CMP-*N*-Acetylneuraminic acid synthetase activity. *J. Biol. Chem.*, 270, 30415-30421.
- 64) Raju, T. S. and **Stanley, P.** (1996) LEC14: A dominant CHO glycosylation mutant expresses complex *N*-glycans with a new *N*-Acetylglucosamine residue in the core region. *J. Biol. Chem.*, 271, 7484-7493.
- 65) Ioffe, E., Liu, Y. and **Stanley, P.** (1996) Essential role for *N*-glycans in forming an organized layer of bronchial epithelium, *Proc. Natl. Acad. Sci. U.S.A.*, 93, 11041-11046.
- 66) Weinstein, J., Sundaram, S., Wang, X., Delgado, D., Basu, R. and **Stanley, P.** (1996) A point mutation mislocalizes GlcNAc-TV in the Lec4A CHO glycosylation mutant, *J. Biol. Chem.* 271, 27462-27469.
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- 68) Ioffe, E., Liu, Y. and **Stanley, P.** (1997) Complex *N*-glycans in *Mgat1* null preimplantation embryos arise from maternal *Mgat1* RNA. *Glycobiology*, 7, 913-919.
- 69) Raju, S. T. and **Stanley, P.** (1998) Gain-of-function CHO Mutants LEC18 and LEC14 Each Express a Novel *N*-acetylglucosaminyltransferase Activity. *J. Biol. Chem.* 273, 14090-14098.
- 70) Bhaumik, M., Harris, T., Sundaram, S., Johnson, L., Guttenplan, J., Rogler, C., and **Stanley, P.** (1998) Progression of Hepatic Neoplasms in Severely Retarded Mice Lacking the Bisecting GlcNAc on *N*-Glycans: Evidence for a glycoprotein Factor that Facilitates Hepatic Tumor Progression. *Cancer Res.*, 58, 2881-2887.
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- 76) Moloney, D. J., Panin, V. M., Johnston, S. H., Chen, J., Shao, L., Wilson, R., Wang, Y., **Stanley, P.**, [^]Irvine, K. D., [^]Haltiwanger, R. S. and [^]Vogt, T. F. (2000) Fringe is a Glycosyltransferase that Modifies Notch. *Nature*, 406, 369-375.

[^]Corresponding authors

***Reviewed in Nature News and Views: Nature 406, 357-358**

77) Shi X, Potvin B, Huang T, Hilgard P, Spray D. C, Suadicani S. O, Wolkoff A. W, **Stanley P**, Stockert RJ (2001) A novel casein kinase 2 α subunit regulates membrane protein traffic in the human hepatoma cell line HuH-7. *J. Biol. Chem.*, 276, 2075-2082.

78) Bhattacharyya, R., Gliddon, B., Beccari, T., Hopwood, J. J., and **Stanley, P.** (2001) A Novel Missense Mutation in Lysosomal Sulfamidase is the Basis of MPS III A in a Spontaneous Mouse Mutant. **Glycobiology**, 11, 99-103.

79) Lee, J-H, Sundaram, S. Shaper, N. L. Raju, T. S. and **Stanley, P.** (2001) CHO Cells May Express Six β 4Galactosyltransferases. Consequences of the Loss of Functional β 4GalT-1, β 4GalT-6 or Both in CHO Glycosylation Mutants. *J. Biol. Chem.*, 276, 13924-13934.

80) Oelmann, S., **Stanley, P.** and Gerardy-Schahn (2001) Point mutations identified in Lec8 CHO glycosylation mutants that inactivate both the UDP-galactose and the CMP-sialic acid transporters. *J. Biol. Chem.* 276, 26291-26300.

81) Cao, Z., Zhao, Z., Mohan, R., Alroy, J., **Stanley, P.** and Panjwani N. (2001) Role of the Lewisx glycan determinant in corneal epithelial cell adhesion and differentiation. *J. Biol. Chem.*, 276, 21714-21723.

82) Chen, W., Unligil, U. M, Rini, J. M. and **Stanley, P.** (2001) Independent Lec1A mutants arise from point mutations in N-acetylglucosaminyltransferase I that reduce affinity for both substrates. Molecular consequences based on the crystal structure of GlcNAc-TI. *Biochemistry*, 40, 8765-8672.

83) Wang, Y., Shao, L., Shi, S., Harris, R. J., Spellman, M. W., **Stanley, P.**, Haltiwanger, R. S. (2001) Modification of epidermal growth factor-like repeats with O-fucose. Molecular cloning and expression of a novel GDP-fucose protein O-fucosyltransferase. *J. Biol Chem.* 276, 40338-40345.

***Recommended by Faculty of 1000**

84) Chen, J., Moloney, D. J. and **Stanley, P.** (2001) Fringe modulation of Jagged1-induced Notch signaling requires the action of β 4Galactosyltransferase-1. *Proc. Natl. Acad. Sci. USA*, 98, 13716-13721.

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86) Nakamura, Y., Haines, N., Chen, J., Okajima, T., **Stanley, P.**, Irvine, K. D. and Furukawa, K. (2002) Identification of a *Drosophila* gene encoding xylosylprotein b4-galactosyltransferase that is essential for the synthesis of glycosaminoglycans and for morphogenesis. *J. Biol. Chem.* 277:46280-46288

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88) Shi, S. and **Stanley, P.** (2003) Protein O-Fucosyltransferase 1 is an Essential Component of Notch Signaling Pathways. *Proc. Natl. Acad. Sci.*, 100, 5234-5239.

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89) Lee, J, Park, S-H, and **Stanley, P.** (2003) Antibodies that Recognize Bisected Complex N-Glycans on Cell Surface Glycoproteins Can Be Made in Mice Lacking N-acetylglucosaminyltransferase III. *Glycoconj. J.*, 19, 211-219.

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- 91) Lee, J-H., Park, S-H., Sundaram, S., Raju, T. S., Shaper, N. L. and **Stanley, P.** (2003) A Mutation Causing Reduced Expression of Six β 4Galactosyltransferase Genes is the Basis of the Lec19 CHO Glycosylation Mutant. *Biochemistry*, 42, 12349-12357.
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- 95) Shi S, Williams SA, Seppo A, Kurniawan H, Chen W, Ye Z, Marth JD, **Stanley P.** (2004) Inactivation of the *Mgat1* gene in oocytes impairs oogenesis, but embryos lacking complex and hybrid N-glycans develop and implant. *Mol Cell Biol.* 24; 9920-9929. Erratum (2005) 25, 1214.
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- 97) Chen W, Tang J, **Stanley P.** (2005) Suppressors of α (1,3)fucosylation identified by expression cloning in the LEC11B gain-of-function CHO mutant. *Glycobiology.* 15, 259-269.
- 98) Hoodbhoy T, Joshi S, Boja ES, Williams, S. A, **Stanley P.** and Dean J. (2005) Human sperm do not bind to rat zonae pellucidae despite the presence of four homologous glycoproteins. *J. Biol. Chem.* 280, 12721-.12731.
- 100) Patnaik, S. K. and **Stanley, P.** (2005) Mouse Large Can Modify Complex *N*- and Mucin O-glycans on α -Dystroglycan to Induce Laminin Binding. *J. Biol. Chem.* 280, 20851-20859.
- 101) Shi, S., Stahl, M. Lu, L. and **Stanley, P.** (2005) Canonical Notch signaling is dispensable for early cell fate specifications in mammals. *Mol. Cell Biol.*, 25, 9503-9508.
- 102) Patnaik S. K, Potvin B, Carlsson S, Sturm D, Leffler H, and **Stanley P.** (2006) Complex N-glycans are the Major Ligands for Galectin-1, Galectin-3 and Galectin-8 on Chinese Hamster Ovary Cells. *Glycobiology.* 16-305-317.
- 103) Chen, J. Shi, S., Lu, L. and **Stanley, P.** (2006) Expression of Notch pathway genes in embryos lacking β 4galactosyltransferase 1. *Gene Expression Patterns*, 6, 376-382.
- 104) Buono, K., Robinson, G. W., Martin, C., Shaolin S., **Stanley, P.**, Tanigaki, K., Honjo, T. and Hennighausen, L. (2006) The canonical Notch/RBP-J signaling pathway controls the balance of cell lineages in mammary epithelium during pregnancy. *Dev. Biol.*, 293, 565-580.
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106) Williams, S. A., Xia, L., Cummings, R. D., McEver, R. P. and **Stanley, P.** (2007) Fertilization in the Mouse does Not Require Terminal Galactose or N-acetylglucosamine on the Zona Pellucida Glycans. *J. Cell Sci.*, 120, 1341-1349.

107) Shi S, Ge C, Luo Y, Hou X, Haltiwanger RS, **Stanley P.** (2007) The threonine that carries fucose, but not fucose, is required for cripto to facilitate nodal signaling. *J. Biol. Chem.*, 282, 20133-20141.

108) Stockert RJ, Potvin B, Nath S, Wolkoff AW, **Stanley P.** (2007) New liver cell mutants defective in the endocytic pathway. *Biochim Biophys Acta.* 1768(7), 1741-1749. PMID: 1939891

109) Ge, C and **Stanley, P.** (2008) The O-fucose glycan in the Notch1 ligand binding domain regulates embryogenesis and T cell development, *Proc. Natl. Acad. Sci. USA*,105:1539-44. PMID: 2234180

110) Williams, S. A. and **Stanley, P.** (2008) Mouse fertility is enhanced by oocyte-specific loss of core 1-derived O glycans. *FASEB Journal*, 22, 2273-2284.

111) Stahl, M. C., Uemura, K. Ge, C, Shi, S., Tashima, Y. and **Stanley, P.** (2008) Roles for Pofut1 and O-fucose in mammalian Notch signaling. *J. Biol. Chem.*, 283; 13638-13651. PMID: 2376238

***Recommended by Faculty of 1000**

112) Ge, C., Liu, T., Hou, X. and **Stanley, P.** (2008) In vivo consequences of deleting EGF repeats 8-12 including the ligand binding domain of mouse Notch1. *BMC Dev. Biol.*, 8, 48. PMID: 2390518

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114) Lindsay, J., Jiao, X., Sakamaki, T., Casimiro, M. C., Shirley, L. A., Tran, T. H., Ju, X., Liu, M., Li, Z., Wang, C., Katiyar, S., Rao, M., Allen, K. G., Glazer, R. I., Ge, C., **Stanley, P.**, Lisanti, M. P., Rui, H., and Pestell, R. G. (2008) ErbB2 Induces *Notch1* Activity and Function in Breast Cancer Cells. *Clinical and Translational Science.* 1, 107-115.

115) Kim, M-L., Chandrasekharan, K., Glass, M., Shi, S., Stahl, M. C., Kaspar, B., **Stanley, P.** and Martin, P. T. (2008) O-fucosylation of muscle agrin determines its ability to cluster acetylcholine receptors. *Molecular and Cellular Neuroscience.* 39, 452-464. PMID: 2646263

116) Guilmeau S, Flandez M, Bancroft L, Sellers RS, Tear B, **Stanley P**, and Augenlicht LH.(2008) Intestinal deletion of Pofut1 in the mouse inactivates Notch signaling and causes enterocolitis. *Gastroenterology*, 135, 849-860.

117) Williams, S. A. and **Stanley, P.** (2009) Complex N-glycans or core 1-derived O-glycans are not required for the expression of stage-specific antigens SSEA-1, SSEA-3, SSEA-4, or Le^y in the preimplantation mouse embryo. *Glycoconjugate Journal.* 26, 335-347.

118) Williams, S. A. and **Stanley, P.** (2009) Oocyte-specific deletion of complex and hybrid N-glycans leads to defects in preovulatory follicle and cumulus mass development.

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***Figure featured on the cover for May, June and July issues.**

119) Aguilan, J. T., Sundaram, S., Nieves, E. and **Stanley, P** (2009) Mutational and Functional Analysis of Large in a Novel CHO Glycosylation Mutant. *Glycobiology*, 19, 971-986. PMID: 2720279P

120) Varki, A., Cummings, R. D., Esko, J. D., Freeze, H. H., **Stanley, P.**, Marth, J. D., Bertozzi, C. R., Hart, G. W. and Etzler, M. E. (2009) Symbol nomenclature for glycan representation. *Proteomics*. 9, 5398-9399.

121) North, S. J., Huang, H-H., Sundaram, S., Jang-Lee, J., Etienne, A. T., Trollope, A., Al-Chalabi, S., Dell, A., **Stanley P.** and Haslam, S. M. (2010) Glycomics profiling of Chinese hamster ovary (CHO) cell glycosylation mutants reveals N-glycans of a novel size and complexity. *J. Biol. Chem.*, 285, 5759-5775.

122) Song Y, Aglipay JA, Bernstein RD, Goswami S and **Stanley P.** (2010) The Bisecting GlcNAc on N-Glycans Inhibits Growth Factor Signaling and Retards Mammary Tumor Progression. *Cancer Research*, 70, 3361-71.

123) Ge, C. and **Stanley, P.** (2010) Effects of varying Notch1 signal strength on embryogenesis and vasculogenesis in compound mutant heterozygotes. *BMC Dev Biol*, 10, 36.

*** Highly accessed**

124) Huang, H-H. and **Stanley, P.** (2010) A testis-specific regulator of complex and hybrid N-glycan synthesis. *J Cell Biol* 190, 893-910

***Selected for "In Focus" article by the editors. *J Cell Biol* 190: 709**

125) Lu, L., Hou, X., Shi, S., Koerner, C. and **Stanley, P.** (2010) Slc35c2 promotes Notch1 fucosylation and is required for optimal Notch signaling in mammalian cells. *J Biol Chem*, 285(46):36245-54.

126) Visan I, Yuan JS, Liu Y, **Stanley P**, Guidos CJ. (2010) Lunatic Fringe Enhances Competition for Delta-Like Notch Ligands but Does Not Overcome Defective Pre-TCR Signaling during Thymocyte {beta}-Selection In Vivo. *J Immunol*, 185(8):4609-17.

127) Williams, S. A. and **Stanley, P** (2011) Premature ovarian failure in mice from oocytes lacking core 1-derived O-glycans and complex N-glycans. *Endocrinology*, 152: 1057-1066.

128) Zheng, T., Jiang, H., Gros, M., Soriano del Amo, D., Sundaram, S., Lauvau, G., Marlow, F., Liu, Y., **Stanley, P.** and Wu, P. (2011) Tracking N-acetyllactosamine on Cell Surface Glycans in vivo. *Angewandte Chemie*, 50: 4113-4118.

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131) Miwa, H., Song, Y., Alvarez, R., Cummings, R. D. and **Stanley, P.** (2012) The bisecting GlcNAc in growth control and tumor progression. *Glycoconjugate J*, 29(8-9):609-18.

132) Batista, F. Lu, L., Williams, S. A. and **Stanley, P.** (2012) Complex N-Glycans are Essential, but Core 1 and 2 Mucin O-Glycans, O-Fucose Glycans and NOTCH1 are Dispensable for Mammalian Spermatogenesis. *Biol. Reprod* 86(6) 179, 1-12.

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134) Müller, R., Jenny, A* and **Stanley, P***. (2013) The EGF repeat-specific O-GlcNAc-Transferase Eogt Interacts with Notch Signaling and Pyrimidine Metabolism Pathways in *Drosophila*. (*co-senior authors), *PLoS One*, 8(5):e62835. doi: 10.1371/journal.pone.0062835.

135) Miwa, H. E., Koba, W. R., Fine, E. J., Giricz, O., Kenny, P. A. and **Stanley, P.** (2013) Bisected, complex N-glycans and galectins in mouse mammary tumor progression and human breast cancer. *Glycobiology* 23(12):1477-90.

136) Dong, Z., Zuber, C., Pierce, M., **Stanley, P.** and Roth, J. (2014) Reduction in Golgi apparatus dimension in the absence of a residential protein, N-acetylglucosaminyltransferase V. *Histochem Cell Biol* 141(2):153-64.

137) Yuan, F., Snapp, E. L., Novikoff, P. M., Suadicani, S. O. Spray, D. C., Potvin, B., Wolkoff, A. W. and **Stanley, P.** (2013) Human Liver Cell Trafficking Mutants: Characterization and Whole Exome Sequencing. *PLoS One*, 9(1):e87043.

138) Tashima, Y. and **Stanley, P.** (2014) Antibodies that Detect O-GlcNAc on the Extracellular Domain of Cell Surface Glycoproteins. *J Biol Chem*, 289, 11132-11142.

139) **Stanley P** and Sundaram S. (2014) Rapid assays for lectin toxicity and binding changes that reflect altered glycosylation in mammalian cells. *Curr Protoc Chem Biol*. 6(2):117-33.

140) Wang W, Yu S, Zimmerman G, Wang Y, Myers J, Yu VW, Huang D, Huang X, Shim J, Huang Y, Xin W, Qiao P, Yan M, Xin W, Scadden DT, **Stanley P**, Lowe JB, Huang AY, Siebel CW, Zhou L. (2015) Notch receptor-ligand engagement maintains hematopoietic stem cell quiescence and niche retention. *Stem Cells*, 33, 2280-2293.

141) Huang HH, Hassinen A, Sundaram S, Spiess AN, Kellokumpu S and Stanley P (2015) GnT1IP-L specifically inhibits MGAT1 in the Golgi via its luminal domain. *eLife*, in press.

142) Song Y, Kumar V, Wei H-X, Qiu J and Stanley P (2015) Lunatic, Manic and Radical Fringe are Required for Optimal T and B Cell Development. *J Immunol* (accepted)

Invited review articles

1) Stanley, P. (1983). Selection of Lectin-Resistant Mutants of Animal Cells. *Methods in Enzymology*. Eds. S. Fleisher and B. Fleisher. Academic Press: 96:157-184.

2) Stanley, P. Glycosylation Mutants of Animal Cells. (1984) *Annual Review of Genetics* 18:525-552.

3) Stanley, P. (1987) Glycosylation Mutants and the Functions of Mammalian Carbohydrates. *Trends in Genetics* 3:77-81.

*Cover feature

4) Stanley, P. (1987) Biochemical Characterization of Animal Cell Glycosylation Mutants. *Meth. Enzymol.* 138:443-458.

- 5) Chaney, W.G., Howard, D., Pollard, J.W., Sallustio, S. and **Stanley, P.** (1987) DNA Transfection of Mammalian Cells using Polybrene. *Methods of Molecular Biology* 4:1-9.
- 6) **Stanley, P.** (1988) Discussion Summary: Role of Glycosylation in the Intracellular Transport of Glycoproteins in "Molecular Biology of Intracellular Protein Sorting and Organelle Assembly." pp. 147-151. Alan R. Liss Inc.
- 7) **Stanley, P.** (1989) Glycobiology: A New Dimension in Diversity. *TIBTECH.* 7:47-49.
- 8) **Stanley, P.** (1992) Glycosylation Engineering. *Glycobiology.* 2:99-107.
- 9) **Stanley, P.** and Ioffe, E. (1995) Glycosyltransferase mutants: Key to new insights in glycobiology. *FASEB J.*, 9, 1436-1444.
- 10) **Stanley, P.**, Raju, T. S. and Bhaumik, M. (1996) CHO cells provide access to novel N-glycans and developmentally regulated glycosyltransferases, *Glycobiology*, 6, 695-699.
- 11) **Stanley, P.** (1998) In the land of chocolate, excitement about sugars! *Trends in Cell Biology*, 8, 128-130.
- 12) **Stanley, P.** (2002) Biological Consequences of Overexpressing or Eliminating *N*-acetylglucosaminyltransferase-TIII in the Mouse. *Biochim. Biophys. Acta*, 1573, :363-368.
- 13) Haltiwanger, R. S. and **Stanley, P.** (2002) Modulation of receptor signaling by glycosylation: Fringe is an *O*-Fucose- β 1,3-*N*-acetylglucosaminyltransferase. *Biochim. Biophys. Acta*, 1573:328-335.
- 14) Shi, S. and **Stanley, P.** (2006) Evolutionary origins of Notch signaling in early development. *Cell Cycle*, 5, 274-278.
- 15) Lu, L. and **Stanley, P.** (2006) Roles of *O*-Fucose Glycans in Notch Signaling Revealed by Mutant Mice. *Methods in Enzymology*, 417:127-36.
- 16) Patnaik, S. K. and **Stanley, P.** (2006) Lectin-resistant CHO glycosylation mutants. *Methods Enzymol.*; 416:159-182.
- 17) **Stanley, P.** (2007) A method to the madness of N-glycan complexity? *Cell* 129: 27-29. Preview.
- 18) **Stanley, P.** (2007) Regulation of Notch Signaling by Glycosylation. *Curr. Opin. Struct. Biol.*, 17: 530-5. PMID: 2141538
- 19) **Stanley, P.** (2008) Glucose: a novel regulator of Notch signaling. *ACS Chem Biol.* 18: 210-213.
- 20) **Stanley, P.** and Guidos, C. J. (2009) Regulation of Notch Signaling During T and B Cell Development by *O*-Fucose Glycans. *Immunol. Rev.* 230, 201-215.
- 21) **Stanley, P.** and Okajima, T. (2010) Roles of Glycosylation in Notch Signaling. *Current Topics in Developmental Biology*, 92, 131-164.
- 22) Williams, S. A. and **Stanley, P.** (2011) Roles for *N*- and *O*-Glycans in Early Mouse Development. *Adv. Exp. Biol. Med.* 705:397-410.

23) **Stanley P.** Golgi Glycosylation. (2011) Cold Spring Harb Perspect Biol. 1;3(4). pii: a005199. doi: 10.1101/cshperspect.a005199.

24) **Stanley P.** (2014) A Novel Mechanism of Tumor Angiogenesis – Galectin-1 Pulls the Strings on VEGFR2. Cell, 156, 625-626.

25) **Stanley, P.** (2014) Galectins CLIC Cargo Inside. Nature Cell Biology. 16, 506-507

26) **Stanley P, Sundaram S.** (2014) Rapid assays for lectin toxicity and binding changes that reflect altered glycosylation in mammalian cells. Curr Protoc Chem Biol. 6:117-133.

Chapters in books:

1) **Stanley, P.** (1980) Surface Carbohydrate Alterations of Mutant Mammalian Cells Selected for Resistance to Plant Lectins. In "Biochemistry of Proteoglycans and Glycoproteins", edited by W.J. Lennarz, Plenum Publishing Co., New York. pp. 161-189.

2) **Stanley, P.** (1984) Lectin-Resistant Glycosylation Mutants. In "Molecular Cell Genetics. The Chinese Hamster Cell", ed. M.M. Gottesman, Wiley and Sons, New York, pp. 745-772.

3) **Stanley, P.** (1991). Glycosylation Engineering: CHO Mutants for the Production of Glycoproteins with Tailored Carbohydrates. In "Protein Glycosylation; Cellular, Biotechnical and Analytical Aspects" GBF Monographs Vol. 15, VCH Publishers, pp 225-234.

4) **Stanley, P.** (1993) Use of Mammalian cell mutants to study the function of the *N*- and *O*-linked glycosylation. In "Cell Surface and Extracellular Glycoconjugates: Structure and Function". Eds. R. P. Mecham and D. Roberts. Academic Press Inc. pp. 181-222.

5) **Stanley, P.** (1994) Genes required for the maturation of *N*-linked carbohydrates in Mammalian cells. in "Guidebook to the Secretory Pathway". eds. J. Rothbatt, P. Novick, T. Stevens, Oxford, University Press, pp. 190-194.

6) **Stanley, P.,** (2000) Functions of Carbohydrates Revealed by Transgenic Technology. In "Molecular and Cellular Glycobiology" Eds. Fukuda, M. and Hindsgaul, O. Oxford University Press, pp 169-198.

7) **Stanley, P.** (2002) *N*-acetylglucosaminyltransferase-I. In "Handbook of Glycosyltransferases and Related Genes" Eds. Taniguchi, N., Honke, K. and Fukuda, M., Springer-Verlag, Tokyo pp 61-69.

8) **Stanley, P.** and Patnaik, S. K. (2005) Chinese hamster ovary (CHO) glycosylation mutants for glycan engineering. In "Handbook of Carbohydrate Engineering" Ed. Yarema, K. J. CRC Press, Taylor and Francis Group. pp 365-379.

9) Shi, S. and **Stanley, P.** (2007) Glycosylation in Development. In: Glycobiology. pp 235-245. Eds. Sansom, C. and Markman, O. Scion Publishing Ltd.

10) **Stanley, P.** (2014) *N*-acetylglucosaminyltransferase-I. In "Handbook of Glycosyltransferases and Related Genes" Eds. Taniguchi, N., Honke, K. and Fukuda, M., Springer-Verlag, Tokyo pp. pp 183-194

11) **Stanley P.** (2014) *O*-Glycans in Mammalian Notch Signaling. In "Glycoscience: Biology and Medicine" Eds. Taniguchi, N., Endo, T., Hart, G.W., Seeberger, P. and Wong, CH. Springer-Verlag. Tokyo. pp 857-864.

12) **Stanley P.,** *N*-Linked Glycans (*N*-Glycans). In: Ralph A Bradshaw and Philip D Stahl (Editors-in-Chief), Encyclopedia of Cell Biology, Vol 2, Waltham, MA: Academic Press, 2016, pp. 339-346.

Textbooks

1) **Biochemistry**, third and fourth editions; edited by G. Zubay;
Chapters 13 and 18.

2) Henrissat, B., Surolia, A. and **Stanley, P.** (2009) A Genomic View of Glycobiology. In: Varki A, Cummings RD, Esko JD, Freeze HH, Stanley P, Bertozzi CR, Hart GW, Etzler ME, editors. Essentials of Glycobiology. 2nd edition. Cold Spring Harbor (NY): Cold Spring Harbor Laboratory Press. Chapter 7.

3) **Stanley, P.**, Schachter, H. and Taniguchi, N. (2009) N-Glycans. In: Varki A, Cummings RD, Esko JD, Freeze HH, Stanley P, Bertozzi CR, Hart GW, Etzler ME, editors. Essentials of Glycobiology. 2nd edition. Cold Spring Harbor (NY): Cold Spring Harbor Laboratory Press. Chapter 8.

4) Brockhausen, I., Schachter, H. and **Stanley, P.** (2009) O-GalNAc Glycans. In: Varki A, Cummings RD, Esko JD, Freeze HH, Stanley P, Bertozzi CR, Hart GW, Etzler ME, editors. Essentials of Glycobiology. 2nd edition. Cold Spring Harbor (NY): Cold Spring Harbor Laboratory Press. Chapter 9.

5) Schnaar RL, Suzuki A, **Stanley P.** (2009) Glycosphingolipids. In: Varki A, Cummings RD, Esko JD, Freeze HH, Stanley P, Bertozzi CR, Hart GW, Etzler ME, editors. Essentials of Glycobiology. 2nd edition. Cold Spring Harbor (NY): Cold Spring Harbor Laboratory Press. Chapter 10.

6) **Stanley, P.** and Cummings, R. D. (2009) Structures Common to Different Glycans. In: Varki A, Cummings RD, Esko JD, Freeze HH, Stanley P, Bertozzi CR, Hart GW, Etzler ME, editors. Essentials of Glycobiology. 2nd edition. Cold Spring Harbor (NY): Cold Spring Harbor Laboratory Press. Chapter 13.

7) Esko J. D. and **Stanley, P.** (2009) Glycosylation Mutants of Cultured Cells. In: Varki A, Cummings RD, Esko JD, Freeze HH, Stanley P, Bertozzi CR, Hart GW, Etzler ME, editors. Essentials of Glycobiology. 2nd edition. Cold Spring Harbor (NY): Cold Spring Harbor Laboratory Press. Chapter 46.

8) Mulloy, B., Hart, G. W. and Stanley, P. (2009) Structural Analysis of Glycans. In: Varki A, Cummings RD, Esko JD, Freeze HH, Stanley P, Bertozzi CR, Hart GW, Etzler ME, editors. Essentials of Glycobiology. 2nd edition. Cold Spring Harbor (NY): Cold Spring Harbor Laboratory Press. Chapter 47.

Funding

Active

Roles for Glycosylation in Notch Signaling

NIH RO1 GM-11A1 (P. I. Stanley) Total period 04/01/13 – 03/31/17

Lectin Resistant Tumor Cells and Functional Glycomics

NIH RO1 GM-105399-29A1 (P.I.: Stanley) Total Period 07/01/13 – 06/30/17

NIH PO1 13330 (P.I.: Goldman) Total Period 07/31/13 -06/30/18

Pamela Stanley is the Associate Director for laboratory research

Royalty funds -- from licensing CHO cell glycosylation mutants.

Completed

Roles for N-Glycans in Spermatogenesis

Mizutani award (P. I. Stanley) Total period 03/01/13 – 02/28/14

Glycosylation Mutants of Mice and Animal Cells

NIH RO1 CA 30645 (P.I: Stanley) Total Period 04/01/81 - 11/30/11

Liver Cell Membrane Proteins: Expression and Function

NIH 5 P01 DK41918 (P.I.: Wolkoff) Total Period 12/01/91 - 11/30/12
Pamela Stanley was PI of subproject 3

Consortium for Functional Glycomics

NIH 1U54 GM62116 (P. I.: James Paulson) Total Period 09/1/01 – 08/31/11
Pamela Stanley was steering committee member, chair mouse committee, chair publications committee

Invited Lectures (last 10 years)

2005

Feb 5-9 Association of Biomedical Resource Meeting
Plenary lecture
Mar 6-12 Gordon Conference on Glycobiology
Invited speaker
April 11 Dept Biochemistry University of Wisconsin, Madison
Seminar
July 9-13 Mucins in Health and Disease, Cambridge
Invited speaker.

2006

March 28 Dept. Biochemistry, University of Miami
Seminar
June 19-25 IUBMB Kyoto Japan
Invited symposium chair/speaker
June 26-28 GlycoT VI, Japan
Invited speaker

2007

March 3-9 Gordon Conference on Glycobiology
Invited chair
April 11 University of Georgia
Invited seminar
June 9-15 Benzon Symposium
Copenhagen
Invited speaker
July 8-12 Third Molecular Immunology Conference
Taiwan
Invited speaker
July 15-20 International Glycoconjugate Organization
Cairns, Australia
Invited speaker
Dec 9-12 EMBO Workshop on Development & Glycobiology
Lille, France
Invited speaker

2008

Feb 11	Cancer Center, University of New Mexico Seminar
April 11	Glycobiology Symposium Emory University Invited speaker
April 13-18	Cell Culture Engineering XI Colum, Australia Keynote speaker
May 17-20	GlycoT 2008 Invited/declined
Oct 1	University of Kansas Seminar
Oct 2	Sigma Chem Co. St Louis Seminar
Oct 30	SUNY Stony Brook Seminar
Nov 19th	R&D Systems Minneapolis Seminar
 <u>2009</u>	
Jan 18-22	Gordon conference on Glycobiology Invited speaker
April 29	Texas A & M Biochemistry and Molecular Biology Dept. Seminar
Sept 17	UT Southwestern Dept. Biochem and Mol Biol Seminar
Sept 27-Oct 1	International meeting on Notch Athens, Greece Invited speaker
Sept. 29	German Biochemical and Molecular Biology Society "Signal Transduction and Disease" Plenary speaker - declined
Oct 16	Dept. Molecular Genetics University of Toronto Invited speaker
 <u>2010</u>	
Feb 25	Bio21 University of Melbourne, Australia Invited seminar
Mar 16-19	Hunter Valley International Cell Biology meeting Hunter Valley, NSW, Australia Invited speaker
Mar 31	Dept. Biochem. Univ. Melbourne, Australia Invited seminar
May 17	Peter Mac Callum Cancer Inst.

Melbourne, Australia
Invited seminar

Jun 23 BAAMBII postdoctoral association
Bio21. A career in science.
Invited seminar

Sept 14 Goldstein lecture
Dept. Biol. Chem.
University of Michigan, Ann Arbor
Invited seminar

Nov 7-10 Society for Glycobiology annual meeting
Invited chair and speaker

Nov 10-12 Muscular Dystrophy meeting
Charlotte, Virginia
Invited speaker

2011

Feb 17 Cell Lablinks
Columbia University, NY
Invited speaker

Mar 7-10 Keystone Meeting
Glycoimmunology
Chair and speaker

Mar 14,15 CFG meeting CCRC Georgia
CFG steering committee

Mar 28 Case Western Reserve
Dept. Pathology (Lan Zhou)
Seminar

April 8 University Wyoming
Dept. Biochemistry (Don Jarvis)
Seminar

May 6-13 Gordon Conference on Glycobiology
Chair session

June 13 University of Toronto, HSK
Dept. Biochemistry (Harry Schachter)
Seminar

June 29 Upstate Medical University
Dept. Neuroscience (Huaiyu Hu)
Seminar

Aug 21-26 Glyco XXI meeting IGO, Vienna, Austria
Plenary speaker

Oct 17 Louisiana Stat University
Dept. Biochemistry & Chemistry(Roger Laine)
Seminar

Nov 17 Biogen IDEC, Cambridge (Brian Majors)
Seminar

2012

Feb 12,13 National Academy of Sciences
Workshop on the future of the Glycosciences
Speaker

Jun 5-9 GlycoT 2012, Hanover, Germany
Speaker

Aug 12-17 First Gordon Conference on Notch
Speaker

Oct 1-5 Peter Gallagher Memorial Lecture
Griffith University, God Coast Australia

Nov 11-14 ASMB and Soc for Glycobiology meeting
Speaker

2013

April 20-24 ASBMB Annual Meeting Theme Organizer,
Session Chair and Speaker

Sept 17-19 International meeting on The Golgi
Bad Ischl, Austria
Invited speaker

2014

Feb 3 Horwitz Faculty Prize Lecture
Albert Einstein College Medicine

July 20-24 Notch Gordon Conference, Maine
Invited speaker

Oct 30 Bio21, Dept Biochemistry, Australia
Invited speaker

2015

April 20-21 Jenner Symposium
Institute Curie, Paris,
Plenary speaker

May 6 WALs lecture, NIH

May 11 Depts. Pathology and Cell Biology,
Columbia Physicians and Surgeons
Invited speaker

Sept 13-19 International Glycoconjugate Organization, Croatia
Keynote speaker

Dec 8 Biofrontiers. Colorado
Invited speaker

Teaching:

Medical School

Virology (4) 1978 – 1986
Origins of Cancer (3) 1987 – 1992

Graduate School (Lectures)

Biochemistry (4) 1980 - 2008
Cell Biology (2) 1984 - 2008
Membranes (10) 1978 – 1984
Biochemistry II (2) 2002 - 2008
Glycobiology (15) 1992 -

EINSTEIN COMMITTEES: (2015)

Cancer Center Steering Committee
Cancer Center Executive Committee
Senate
Senate Council
Senate committee on Faculty Interactions (Chair)
Senate Faculty Review Committee
Communications Committee
MSTP steering committee
Cell Biology Dept.—Organize weekly work-in-progress, advisory groups, biannual retreat
Grad student advisory committees (5)

PRE-DOCTORAL SCHOLARS

NAME	PERIOD OF STAY	POSTDOCTORAL/CURRENT POSITION	CURRENT AFFILIATION
James Ripka	1980-1986	Dr. Michael Pierce Dept of Biochemistry University of Miami	Vice-President Alden Group Scientific consultants
Daniel Howard	1984 -1988	Physician	University of Maryland Health Center Baltimore, MD
Sandra Sallustio	1984-1990	Dr. Marcia Goldberg AECOM, Dept. of M & I	Assistant Prof. Mt. Sinai Medical Center New York
Jing Yang	1988-1993	Dr. Bruce Furie Div. of Hematology- Oncology, New England Medical Center, Tufts University, Boston	Senior Scientist Centocor Philadelphia
Ella Ioffe	1991-1995	Dr. Jeffrey Friedman Rockefeller University	Senior Scientist Regeneron Inc. New York
Aimin Zhang	1991-1998	Dr. Raju Kucherlapati Dept. Molecular Genetics Albert Einstein	Information specialist. New York
Wei Chen	1995 -2001	Dr. Pamela Stanley Dept. Cell Biology	Research Assoc. Rockefeller University (Robert Roeder)
Xiaoping Yang	1996 -2002	Research Assoc. University Pennsylvania (Lewis Chodosh)	
Santosh Patnaik	1997 - 2003	Research Assoc. Dept. Cell Biology, AECOM	Research Associate, University of Buffalo, Dept. Surgery Buffalo, New York
Jihua Chen	1998 - 2003	Research Assoc. Dana Faber, Boston (James Griffin)	Scientist, Regeneron, New York
Mark Stahl	2002-2007	B. Sc. John's Hopkins Baltimore	Resident, UCLA
Linchao Lu	2003 -2010	Postdoctoral Fellow, Pediatrics- Hematology/Oncology Baylor College of Medicine (Lisa Wang)	Baylor College Medicine, Houston, Texas (Lisa Wang)

Huang-Hsiang Huang	2003 -2010	Postdoctoral Fellow Caltech, Pasadena (Linda Hsieh-Wilson)	California Inst. Technology, Pasadena California (Linda Hsieh-Wilson)
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POST DOCTORAL SCHOLARS

NAME	PERIOD OF STAY	GRADUATE INSTITUTION	CURRENT AFFILIATION
Peter Draber	1980-1982	RNDr degree Charles University Czech Republic	Professor and HHMI Investigator, Institute of Molecular Genetics, Academy of Sciences of the Czech Republic
Christine Campbell	1980-1983	Ph.D. University of Toronto, Canada	Res. Assist. Prof. SUNY Buffalo
William Chaney	1983- 1987	Ph.D., Michigan State University	Assoc. Professor of Biochemistry, University of Nebraska Medical School
Ravindra Kumar	1987- 1992	Ph.D., University of New Brunswick, Canada	Senior Scientist, Acceleron Pharma, Boston
Manas Ray	1988- 1993	Ph.D., University of Calcutta, India	Senior Scientist, Bayer Laboratories, Berkeley
Y. Liu	1992-1995	M.D., Nanjing Medical College, China	Medical Practitioner
T. Shantha Raju	1992-1996	Ph.D. University of Mysore, India	Senior Scientist, Centocor, Pennsylvania
Mantu Bhaumik	1992- 1997	Ph.D., Jadavpur University, India	Assistant Prof., Dept. Pediatrics, Division of Developmental Biology, Rutgers University, N. J.
X. Zhang	1995- 1996	Ph.D., Peking Union Medical College	Research Associate Mt. Sinai School of Medicine
Jaehoon Lee	1996-2000	Ph.D., University of Florida	Research Associate AECOM, Biochemistry
Riddhi Bhattacharya	1996-2000	Ph.D., University of Calcutta	Scientist, Enzo Biochem Inc., New York
Jian Tang	1998-2001	Ph.D., Chinese Academy of Sciences	Scientist Phylonix Pharmaceuticals, Boston

Shaolin Shi	1998-2004	Ph.D., Fudan University, China	Assistant Professor Dept. Medicine Mount Sinai School Medicine New York
Antti Seppo	2000-2001	Ph.D., University of Helsinki, Finland	Scientist, Ikonysis, New Haven
Sung-Hae Park	2000-2001	Ph.D., University of Washington, Seattle	Senior Scientist, Genzyme, MA
Daniel J. Moloney	2000-2002	Ph.D., SUNY at Stony Brook	Research Asst. Prof., Dept. Biochemistry & Cell Biology SUNY, Stony Brook. NY
Suzannah Williams	2002-2007	Ph. D. University of London, England	Lecturer, Dept. Physiology, Anatomy & Genetics, University of Oxford, England.
Changhui Ge	2002-2007	Ph. D. Dalian Medical University, China	Scientist, Beijing Institute of Radiation Medicine, Beijing, 100850, P.R.China
Yeongjin Hong	2001-2002	Ph. D. Osaka University Japan	Asst. Prof. Dept. Microbiology Chonnam National Uni Med School, Chonnam, Korea
Kazuhide Uemura	2002-2004	Ph. D. Kyoto University Japan	Associate Professor Dept. Clin Pharm & Therapeutics, University of Shizuoka, Japan
Yinghui Song	2003-2011	Ph. D. Peking Union Med College, China	Research assistant, Dept. Genetics, Albert Einstein College Medicine
Tongyi Liu	2005-2006	MD Shanghai Second Medical University	Scientist, Chengdu Jingyuan Bio-Science & Technology Co., Ltd. Chengdu, China.
Santosh Patnaik	2004-2006	MD All India Institute PhD Albert Einstein College Medicine	Research Associate, University of Buffalo, Dept. Surgery Buffalo, New York
Reto Muller	2005-2012	Ph.D. ETH Zurich, Switzerland	Associate, Dept. Genetics, Albert Einstein College Med.
Xinghua Hou	2005-2009	Ph. D. Gunma University, Japan	Scientist, Merck, China
Jennifer Aguilan	2005-2011	Ph. D. University of Manila, Philippines	Associate, Dept. Biochemistry Albert Einstein College Medicine

Jason Aglipay	2006-2008	Ph. D. Mt. Sinai/NYU, New York	Teaching
Yuko Tashima	2007-2012	Ph. D. Osaka University, Osaka, Japan	Research assistant, Natl. Cerebral & Cardiovascular Center, Osaka, Japan
Yinghui Liu	2007-2008	Ph. D. Syracuse University, New York	Project Director BGI-Shenzhen, Shenzhen, China
Frank Batista	2008-	Ph. D. Denis Diderot University, Paris.	
Ju Qiu	2009-2009	Ph. D. Shanghai Institute of Immunology, Shanghai	Res. Assoc., Northwestern, University, Chicago
Hua-Xing Wei	2009-	Ph. D. University of Science and Technology, Heifei	
Hazuki Miwa	2009-2013	Ph. D. Case Western Reserve, Cleveland, Ohio, USA	Seeking a job in Biotechnology
Linchao Lu	2010-2011	Ph. D. Dept. Cell Biology Albert Einstein	Postdoctoral Fellow, Pediatrics- Hematology/Oncology Baylor College of Medicine (Lisa Wang)
Huang-Hsiang Huang	2010-2011	Ph. D. Dept. Cell Biology Albert Einstein	Postdoctoral Fellow Caltech, Pasadena (Linda Hsieh-Wilson)
Jillian Prendergast	2013-	Ph. D. Johns Hopkins Medical School, Baltimore	
Shweta Varshney	2013-	Ph. D. SUNY Downstate, Brooklyn, NY	
Barnali Biswas	2013 –		
Vivek Kumar	2014-	Ph. D. Dept. Animal Sciences, University of Hyderabad, India	
		Ph. D. Dept. Molec. Med. LaSapienza University, Rome, Italy	
Meng Liang	2015-	Ph. D. University of Science and Technology of China (USTC)	

VISITING SCIENTISTS

NAME	PERIOD OF STAY	CURRENT POSITION
Barry Potvin, Ph.D.	1987-	Professor Department of Biology Yeshiva University New York, NY
Olga Blumenfeld, Ph.D.	1995- 1997	Professor Department of Biochemistry Albert Einstein College of Medicine
Noorjahan Panjwani, Ph.D.	1997- 1998	Associate Professor Departments. of Biochemistry and Ophthalmology Tufts University. School of Medicine Boston
Masahiro Asada, Ph.D.	1999- 2000	Research Scientist National Institute of Human Bioscience and Technology Japan