

Vivek Malhotra
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Current Position

ICREA Research Professor and Group Leader:	2008-
Coordinator , Quantitative Cell Biology Program:	2008-2024

Education

B.Sc, Biochemistry Department, Stirling University:	1978 -1982
D.Phil, Biochemistry Department, Oxford University:	1982- 1985
Postdoctoral fellow, Department of Biochemistry, Stanford University:	1985 -1990

Research and professional experience

Assistant Professor, Biology Department. UC San Diego:	1990-1995
Associate Professor (tenured), Biology Department, UCSD:	1995-1999
Professor, Cell and Developmental Biology Department, UCSD:	1999-2008
Chair and ICREA Professor Cell Biology, CRG:	2008-
Adjunct Professor, Cell Biology Dept., Yale University, USA:	2019-
Adjunct Professor, National Centre of Biological sciences, India:	2014-

Awards and Honors

Pirie-Reid Scholar, Oxford University:	1982-1985
Damon-Runyon Walter-Winchell Post-doctoral Fellow:	1985-1987
American Cancer Society Senior Post-doctoral Fellow:	1988-1990
Basil O'Connor Scholars Award:	1992-1995
Established Investigator of the American Heart Association:	1995-2000
Senior investigator, Sandler foundation for Asthma:	2004-2007
Elected Fellow, AAAS:	2005
Elected Member, EMBO:	2009
ASBMB Merck award:	2013
ERC Advanced grant:	2010-2016
Miller visiting professor fellowship, UC Berkeley, USA:	2016
ASCB Lifetime Fellow, USA:	2018
NGBT, excellence in science award, India:	2019
Humboldt research award, Germany:	2020
Red bird visiting fellow, Institute of advanced studies, HKUST, Hong Kong:	2023
ERC synergy grant:	2021-2027
Elected member, American Academy of Arts and Sciences	2024
Westlake University Distinguished Fellow (China)	2025
Vajra Distinguished Fellow (India)	2025-2027

Advisory committees

Member, NIH study section Cell Biology and Physiology-1:	1995-1999
Scientific Advisory Committee, Damon Runyon Cancer Foundation:	2003; 2006-2007
Review Board, CSIC institutes, Spain:	2009
EMBO Meeting Organizing Committee:	2010-2011

Scientific Advisory Board, CNR, Naples, Italy:	2011-2017
Scientific Advisory Board, CBMSO, Madrid, Spain:	2011-2020
Scientific Advisory Board, CABIMER, Spain:	2014- 2023
Scientific Advisory Board, DBT, India:	2015- 2018
Jury, Infosys Award, India:	2018
EMBO fellowship Committee:	2020- 2023
SAB, Tsingua University, state key labs of membrane biology:	2025-

Editorial boards

Cell:	1995-2001
Associate Editor, Molecular Biology of the Cell:	1999- 2011
Journal of Cell Biology:	2007-
Curr. Opin. Cell Biology:	2009- 2015
Reviewing editor eLife:	2012- 2014
Senior editor, eLife:	2014- 2023

Meeting organizer

Juan March meeting ‘membrane fusion,’ Madrid, Spain:	1997
Chair, Organizing Committee, ASCB:	2003
The Golgi meeting, Barcelona, Spain:	2009
ASBMB meeting, The Biochemistry of Membrane Traffic, USA:	2010
EMBO Global Exchange Course, NCBS, Bangalore, India:	2010
EMBO-India Young investigator meeting, CRG. Barcelona:	2017
EMBO meeting, Unconventional protein secretion, Perugia, Italy:	2019
Areces foundation, Spain. Proteostasis and protein secretion:	2019
Membrane trafficking-mechanism & physiology, HKUST, Hong Kong:	2023
EMBO lecture series, India:	2024
Symposium – epithelial transport, Seoul, Korea:	2024

Named and Honorific Lectures 2010- present

Frontiers in science program, Stanford University, USA:	2010
keynote speaker, Curie-Pasteur symposium, Paris, France:	2011
Keynote speaker, Annexins in protein transport, Barcelona:	2011
Ferris Lecture, Yale University, USA:	2011
Merck Award lecture, ASBMB, Boston, USA:	2013
ASCB, Symposium keynote speaker:	2013
Keynote. The matrix biology society, Koln, Germany:	2017
Keynote. 18 th Annual Pittsburgh Symposium on membrane traffic:	2019
Keynote. Membrane trafficking. HKUST, Hong Kong:	2023
Federico Leighton Plenary lecture, Chile:	2024
Keynote, CSHL Asia meeting, Suzhou, China	2025
Keynote, Endoplasmic Reticulum health and disease, Paris, France	2025

Selected Alumni

Postdoctoral mentees:

Julia von Blume (Tenured Associate Professor at Yale University, USA), **Christine Sutterlin** (Professor at the University of California, Irvine), **Kota Saito** (Professor at Akita University, Japan), **Fred Bard** (CNRS Professor at CRCM, Marseille, France), **Adam Linstedt** (Professor at Carnegie Mellon University, USA), **Gerard Cantero-Recesans** (Group Leader at Vall D’Hebron Research Institute, Barcelona), **Julien Villeneuve** (CNRS Professor at IFG, Montpellier), **Felix**

Campelo (Group leader UPF, Barcelona), **Ishier Raote** (CNRS Professor at Institute Jacques-Monod, Paris, France), **Antonio Colanzi** (Principal Investigator at CNR, Italy), **Caroline Denesvre** (Assistant Professor at Universite-Rabelais, France), **Hitoshi Kityama** (Associate Professor at the University of Kyoto, Japan), **Yusuke Maeda** (Professor at Osaka University, Japan), **Jean Ripoche** (Professor at INSERM, Bordeaux, France), **Yuichi Wakana** (Associate Professor at Tokyo College of Pharmacy), **Mariora Chiritoiu** (Assistant Professor at Romanian Academy Inst, Romania), **Sandra Mitrovic** (Group Leader at Basel Univ. Hospital, Switzerland), and **Ignacio Cebrian** (Group Leader at Institute of Histology and Embryology, Argentina), **Agustin Lujan** (Group leader/project director at hospital joan de deu, Barcelona)

Postdoc mentees now in the pharma and technology sectors: **Cristina Nogueira** (Senior Scientist at Oxford Biomedica, UK), **Patrik Erlmann** (Head of Research at Boehringer Ingelheim, USA), **Carine Bossard** (Director at Biosplice Therapeutics, USA), and **Monika Liljedahl** (Senior Medical Director at Leo Pharma, Sweden).

Students:

Brian Link (Professor at Wisconsin Medical Center, USA), **Matt Pecot** (Assistant Professor at Harvard Neurobiology. Deceased), **Peter Takizawa** (Director of Medical Studies at Yale University), **Colin Jamora** (Chair of the Life Sciences Program at Shiv Nader University, India), and **Carla Burbulla Tarrega** (Nephrologist at Hospital Del Mar, Barcelona).

Publications

1. **Malhotra, V.** and Sim, R.B. Role of complement receptor CR1 in the breakdown of soluble and zymosan-bound C3b. **Bioc. Soc. Trans.** 12: 781-782 (1984).
2. **Malhotra, V.** and Sim, R.B. Expression of complement factor H on the cell surface of the human monocytic cell line U937. **Eur. J. Immunol.** 15: 935-941 (1985).
3. **Malhotra, V.**, Hogg, N. and Sim, R.B. Ligand binding by the p150, 95 antigen of U937 monocytic cell: properties in common with complement receptor type 3 (CR3). **Eur. J. Immunol.** 16:1117-1123 (1986).
4. Sim, R.B., **Malhotra, V.**, Ripoche, J., Day, A.J., Micklem, K.J. and Sim, E. Complement receptors and related complement control proteins. **Bioc. Soc. Symp.** 51: 83-96 (1986).
5. Sim, R.B., **Malhotra, V.**, Day, A.J. and Erdei, A. Structure and specificity of complement receptors. **Immunol. Lett.** 14: 183-190 (1987).
6. Melancon, P., Glick, B.S., **Malhotra, V.**, Weidman, P.T., Serafini, T., Gleason, M.L., Orci, L. and Rothman, J.E. A possible role for GTP binding "G" proteins in constitutive protein transport through the Golgi stacks. **Cell** 51: 221-227 (1987).
7. **Malhotra, V.**, Orci, L., Glick, B.S., Block, M.R. and Rothman, J.E. Role of an Nethylmaleimide sensitive transport component in promoting fusion of transport vesicles with the cisternae of the Golgi stacks. **Cell** 54: 1053-1062 (1989).
8. Orci, L., **Malhotra, V.**, Amherdt, M., Serafini, T. and Rothman, J.E. Biochemical dissection of a round of vesicular transport: Sequential coated and uncoated

intermediates mediate inter-cisternal movement in the Golgi stack. **Cell** 56: 357-368 (1989).

9. **Malhotra, V.**, Serafini, T., Orci, L., Shepherd, J. and Rothman, J.E. Purification of a novel class of coated vesicles mediating biosynthetic protein transport through the Golgi stacks. **Cell** 58: 329-336 (1989).

10. Pfanner, N., Orci, L., Glick, B.S., Arden, S.R., **Malhotra, V.** and Rothman, J.E. Fatty acyl-coenzyme A is required for budding of transport vesicles from cisternae. **Cell** 59:95-102 (1989).

11. Melancon, P., Glick, B.S., **Malhotra, V.**, Weidman, P.J., Serafini, T., Orci, L. and Rothman, J.E. A role for GTP-binding proteins in vesicular transport through the Golgi complex. **Secretion and its control**, J.S., Oxford and C.M. Armstrong, Eds. (New York: Rockefeller University Press): 175-188 (1989).

12. Takizawa, P.A., Yucel, J.K., Veit, B., Faulkner, D.J., Deerinck, T., Soto, C., Ellisman, M. and **Malhotra, V.** Complete vesiculation of Golgi membranes and inhibition of protein transport by a novel sea sponge metabolite, Ilimaquinone. **Cell** 73: 1079-1091 (1993).

13. Veit, B., Yucel, J.K. and **Malhotra, V.** Microtubule independent vesiculation of Golgi membranes and the reassembly of vesicles into Golgi stacks. **J. Cell Biol.** 122: 1197- 1206 (1993).

14. Takizawa, P and **Malhotra, V.** Coatomers and Snares in promoting membrane traffic. **Cell** 75: 597-603 (1993).

15. Kahn, R.A., Yucel, J.K., and **Malhotra, V.** ARF signaling: A potential role for phospholipase D in membrane traffic. **Cell** 75: 1045-1048 (1993).

16. Ripoché, J., Link, B., Yucel, J.K., Tokuyasu, K., and **Malhotra, V.** Location of Golgi membranes with reference to rapidly dividing nuclei in Syncytial Drosophila embryos. **Proc. Natl. Acad. Sci.** 91: 1878-1882 (1994).

17. Beck, K., **Malhotra, V.**, and Nelson, J.W. Golgi spectrin: Identification of an erythroid β spectrin homolog associated with the Golgi complex. **J. Cell Biol.** 127: 667-678 (1994).

18. Acharya, U., McCaffery, M., Jacobs, R., and **Malhotra, V.** Reconstitution of the fusion and assembly of vesiculated Golgi membranes (VGMs) into stacks of Golgi cisternae. Requirement of NSF in stack formation. **J. Cell Biol.** 129: 577-591 (1995).

19. Acharya, U., Jacobs, R., Peters, J., -M., Watson, N., Farquhar, M. and **Malhotra, V.** The formation of Golgi stacks from vesiculated Golgi membranes requires two distinct fusion events. **Cell** 82: 895-905 (1995).

20. Acharya, U., Elkins, K., Vance, J. and **Malhotra, V.** Keeping Golgi membranes intact in the pericentriolar region of mammalian cells. **Biochem. Soc. Trans.** 23: 538-541 (1995).

21. Mallabiabarrena, A and **Malhotra, V.** Vesicle biogenesis: The coat connection. **Cell** 83: 667-669 (1995).

22. Acharya, U and **Malhotra, V.** Formation of Golgi stacks from vesiculated Golgi

membranes. **Cold Spring. Harb. Symp. "Protein Kinesis"** vol. LX: 559-566 (1995).

23. Denesvre, C and **Malhotra, V.** Membrane fusion in organelle biogenesis. **Curr. Opin. Cell Biol.** 8:519-524 (1996).

24. Acharya, U and **Malhotra, V.** Reconstitution of Golgi stack formation in permeabilized cells. **Sem. Cell and Dev. Bio.** 7: 511-516 (1996).

25. Emr, S and **Malhotra, V.** Membranes and Sorting; Editorial overview. **Curr. Opin. Cell Biol.** 9: 475-477 (1997).

26. Mironov, A., Colanzi, A., Fiucci, G., Flati, S., Fusella, A., Polishchuk, R., Tullio, G., **Malhotra, V.**, Corda, D., Matteis, M., and Luini, A. Role of NAD⁺ and ADP-ribosylation in the maintenance of the Golgi structure. **J. Cell Biol.** 139: 1109-1118 (1997).

27. Stanley, H., Botas, J., Tokuyasu, K., and **Malhotra, V.** The mechanism of Golgi segregation during mitosis is cell type specific. **Proc. Natl. Acad. Sci.** 94:14467-14470 (1997).

28. Jamora, C., Takizawa, P., Zaarour, R., Denesvre, C., Faulkner, D.J., and **Malhotra, V.** Regulation of Golgi structure through heterotrimeric G-proteins. **Cell** 91: 617-626 (1997).

29. Acharya, U., Mallabiabarrena, A., Acharya, J.K., and **Malhotra, V.** Signaling via Mitogen activated protein kinase is required for Golgi fragmentation during mitosis. **Cell** 92: 183-192 (1998).

30. Warren, G and **Malhotra, V.** The organization of the Golgi complex. **Curr. Opin. Cell Biol.** 10: 493-498 (1998).

31. Glick, B.S and **Malhotra, V.** The curious status of the Golgi apparatus. **Cell** 95: 883-890 (1998).

32. Jamora, C., Yamanouye, N., Trowbridge, I., Lint, J.V., Lauudenslager, J.R., Faulkner, D.J., and **Malhotra, V.** G β y induced Golgi breakdown in through the activation of protein kinase D. **Cell** 98: 59-68 (1999).

33. Colanzi, A., Deerinck, T., Ellisman, M.E.H., and **Malhotra, V.** A specific activation of the Mitogen Activated Protein Kinase Kinase 1(MEK1) is required for Golgi fragmentation during mitosis. **J. Cell Biol.** 149: 331-339 (2000).

34. Liljedahl, M., Maeda, Y., Colanzi, A., Ayala, I., VanLint, J., and **Malhotra, V.** Protein kinase D regulates the fission of cell surface destined transport carriers from the Trans Golgi network. **Cell** 104: 409-420 (2001).

35. Jamora, C., Theodorakis, M.A., **Malhotra, V.**, Theodorakis, E.A. Investigation of the biological mode of clerocidin using whole cell assay. **Bioorganic and Medicinal Chemistry** 9: 1365-1370. (2001).

36. Sutterlin, C., Lin, C-Y., Feng, Y., Ferris, D., Erickson, R., and **Malhotra, V.** Polo-like kinase is required for the fragmentation of the pericentriolar Golgi stacks during mitosis. **Proc. Natl. Acad. Sci.** 98: 9128-9132 (2001).

37. Maeda, Y., Van Lint, J., and **Malhotra, V.** Activation dependent recruitment of Protein kinase D to the trans Golgi network. **EMBO J.** 20: 5982-5990 (2001).
38. Baron, C.L. and **Malhotra, V.** Role of Diacylglycerol in PKD recruitment to the TGN and protein transport to the plasma membrane. **Science.** 295: 325-328 (2001).
39. Van Lint J., RyKx, A., Maeda, Y., Vantus, T., Sturany, S., **Malhotra, V.**, Vandenheede, J.R., and Seufferlein, T. Protein Kinase D: an intracellular traffic regulator on the move. **Trend. Cell Biol.** 12: 185-192 (2002).
40. Sutterlin, C., Hsu, P., Mallabiabarrena, A., and **Malhotra, V.** Fragmentation and dispersal of the pericentriolar Golgi complex is required for entry into mitosis in mammalian cells. **Cell** 109: 359-370 (2002).
41. **Malhotra, V** and Emr, S.D. Rothman and Schekman SNAREd by Lasker for trafficking. **Cell** 111: 1-3 (2002)
42. Duran, J.M., Castel, S., Tomas, M., **Malhotra, V.**, and Egea, G. Myosin Motors and not actin comets are mediators of the actin-based Golgi to ER protein transport. **Mol. Biol. Cell.** 14: 445-459 (2003).
43. Colanzi, A., Sutterlin, C., and **Malhotra, V.** RAF-1 activated MEK1 is found on the Golgi apparatus in late prophase and is required for Golgi complex fragmentation in mitosis. **J. Cell Biol.** 161: 27-32 (2003).
44. Colanzi, A., Sutterlin, C and **Malhotra, V.** Mitosis specific Golgi fragmentation: how and why? **Curr. Opin. Cell Biol.** 15: 462-467 (2003).
45. Bard, F.A., Mazelin, L., Longin-Pechous, C., **Malhotra, V.**, Jurdic, P. Src regulates Golgi structure and KDEL-R dependent retrograde transport to the endoplasmic reticulum. **J. Biol. Chem.** 278:46601-46606 (2003).
46. Shemesh, T., Luini, A., **Malhotra, V.**, Burger, K.N.J. and Kozlov, M.M. Pre-fission constriction of Golgi tubular carriers driven by local lipid metabolism: a theoretical model. **Biophys. J.** 85: 3813-3827 (2003).
47. Yeaman, C., Ayala, I., Wright, J., Ang, A., Maeda, Y., Mellman, I., Nelson, W.J., and **Malhotra, V.** Protein kinase D (PKD) regulates basolateral, but not apical plasma membrane protein exit from the Trans Golgi Network. **Nature Cell Biology** 6: 107-112 (2004).
48. Pecot, M.Y and **Malhotra, V.** Golgi membranes remain segregated from the endoplasmic reticulum during mitosis in mammalian cells. **Cell** 116: 99-107 (2004).
49. Brady, T.P., Wallace, E.K., Kim, S.H., Guizzunti, G., **Malhotra, V.** and Theodorakis, E.A. Fragmentation of Golgi membranes by norrisolide and designed analogs. **Bioorg. Med. Chem. Lett.** 14: 5035-5039 (2004).
50. Diaz Añel, A.M and **Malhotra, V.** PKC is required for PLC and PKD mediated transport to the cell surface and the organization of the Golgi apparatus. **J. Cell Biol.** 169: 83-91. (2005).

51. Sutterlin, C., Polishchuk, R., Pecot, M., and **Malhotra, V.** The Golgi associated protein GRASP65 regulates spindle dynamics and cell division. **Mol. Biol. Cell.** 16:3211-3222 (2005).
52. **Malhotra, V** and Yaffe, M.P. Membranes and organelles: regulating the size, shape, and plasticity of cellular compartments. **Curr. Opin. Cell Biol.** 17 (2005).
53. Bard, F., Casano, L., Mallabiabarrena, A., Wallace, E., Dasgupta, R., Perrimon, N., and **Malhotra, V.** Functional analysis of the drosophila genome reveals new components involved in protein secretion and Golgi organization. **Nature** 439: 604-607 (2006).
54. Guizzunti, G., Brady, T.P., **Malhotra, V.** and Theodorakis, E.A. Chemical analysis of norrisolide-induced Golgi vesiculation. **J. Am.Chem. Soc.** 128: 4190-4191 (2006).
55. **Malhotra, V** and Mayor, S. Cisternal Maturation: is it the way forward. **Nature** 441: 939-940 (2006).
56. Pecot, M and **Malhotra, V.** The Golgi apparatus maintains its organization independent of the endoplasmic reticulum. **Mol. Biol. Cell.** 17:5372-5389 (2006).
57. Bard, F and **Malhotra, V.** (2006). The formation of TGN to cell surface specific transport carriers. **Ann. Rev. Cell Dev. Biol.** 22: 439-455 (2006).
58. Guizzunti G, Brady TP, **Malhotra V**, and Theodorakis EA. Trifunctional norrisolide probes for the study of Golgi vesiculation. **Bioorg. Med. Chem. Lett.** 15: 320-5 (2007).
59. Kineth, M.A., Anjard, C., Fuller, D., Guizzunti, G., Loomis, W.F., and **Malhotra, V.** The Golgi-associated protein GRASP is required for unconventional protein secretion during development. **Cell** 130: 524-534 (2007).
60. Bossard, C., Bresson, D., Polishchuk, R.S., and **Malhotra, V.** Dimeric PKD regulates membrane fission to form transport carriers at the TGN. **J. Cell Biol.** 179: 1123-1131 (2007).
61. Duran, J.M., Kineth, M., Bossard, C., Rose, D.W., Polishchuk, R., Wu, C.C., Yates, J., Zimmerman, T., and **Malhotra, V.** The role of GRASP55 in Golgi fragmentation and entry of cells into mitosis. **Mol. Biol. Cell** 19: 2579-2587 (2008).
62. Nakagomi, S., Barsoum, M.J., Bossy-Wetzel, E., Sutterlin, C., **Malhotra, V.**, Lipton, S.A. A Golgi fragmentation pathway in neurodegeneration. **Neurobiology of Disease** 29: 221-231 (2008).
63. Tsang, W., Bossard, C., **Malhotra, V** and Dynlacht, B. CP110 suppresses primary cilia formation through its interaction with CEP290, a protein deficient in human ciliary disease. **Dev. Cell.** 16: 187-197 (2008).
64. Bisbal, M., Conde, C., Donoso, M., Bolati, F., Sesma, J., Quiroga, S., Diaz-Anel, A., **Malhotra, V.**, Marzolo, M., and Caceres, A. Protein Kinase D regulates trafficking of dendritic membrane proteins in developing neurons. **J. Neuroscience.** 28: 9297-9308 (2008).
65. **Vivek Malhotra:** Gaga for the Golgi. Interview by Liz Savage. **J. Cell Biol.** 184: 4-5 (2009).

66. Saito, K., Chen, M., Bard, F., Chen, S., Woodley, D., Polischuk, R., Schekman, R., and **Malhotra, V.** Tango1 facilitates cargo loading at endoplasmic reticulum exit sites. **Cell** 136: 891-902 (2009).
67. Emr, S et al., Journey through the Golgi-taking stock in a new era. **J. Cell Biol.** 187: 449-453 (2009). Corresponding author **Malhotra, V.**
68. Von Blume, J., Duran, J.M., Forlanelli, E., Alleaume, A.M., Egorov, M., Polischuk, R., Molina, H and **Malhotra, V.** Actin remodeling by ADF/Cofilin is required for cargo sorting at the Trans Golgi Network. **J. Cell Biol.** 187:1055-1069 (2009).
69. Duran, J.M., Anjard, C., Stefan, C, Loomis, W.F., and **Malhotra, V.** Unconventional secretion of Acb1 is mediated by autophagosome. **J. Cell Biol.** 188: 527-536 (2010).
70. Pusapati, G.V., Krndija, D., Armacki, M., vonWickert, G., vonBlume, J., **Malhotra, V.**, Adler, G., and Seufferlein, T. Role of the second cysteine-rich domain and Pro 275 in PKD2 interaction with ARF1, TGN recruitment and protein transport. **Mol. Biol. Cell.**21: 1011-1022 (2010).
71. Guizzunti G., Brady, T.P., Fischer, D., **Malhotra, V.**, and Theodorakis, E.A. Chemical biology studies on norrisolide. **Bioorg. Med. Chem.** 18: 2115-2122 (2010).
72. Cabral, M., Anjard, C., **Malhotra, V.**, Loomis, W., Kuspa, A. Unconventional Secretion of AcbA in *Dictyostelium discoideum* through a vesicular intermediate. **Euk. Cell.** 9:1009-1017 (2010).
73. **Malhotra, V.**, Warren, G and Mellman, I. Protein trafficking between membranes. **Lewin's Cells**. Second edition. Eds Cassimeris, Lingappa and Plopper.. Pp 345-390 (2010).
74. **Malhotra, V** and Campelo, F. PKD Regulates Membrane Fission to Generate TGN to Cell Surface Transport Carriers. **Cold Spring Harb Perspect Biol.** First published online January 19. (2011).
75. Von Blume, J., Alleaume, A.M., Recasens, G.C., Valverde, M.A, and **Malhotra, V.** ADF/Cofilin regulates secretory cargo sorting at the TGN via the Ca²⁺ ATPase SPCA1. **Dev. Cell.** 20: 652-662 (2011).
76. Saito, k., Yamashiro, k., Ichikawa, Y., Erlmann, P., Kontani, K., **Malhotra, V** and Katada. T. cTAGE mediates collagen secretion through interaction with TANGO1 at Endoplasmic reticulum exit sites. **Mol. Biol. Cell** 22: 2301-2308 (2011).
77. **Malhotra, V** and Erlmann, P. Protein export at the ER: TANGO1 helps COPII carriers grow in size. **EMBO. J.** 30. 3475-3480 (2011).
78. Bruns, C., McCaffery, J.M., Curwin, A.J., Duran, J.M., and **Malhotra, V.** Biogenesis of a novel compartment for unconventional protein secretion. **J. Cell Biol.** 195: 979-992 (2011).
79. Campelo, F and **Malhotra V.** Membrane Fission: the biogenesis of transport carriers. **Ann. Rev. Biochem.** 81:407-427 (2012)

80. von Blume J, Alleaume AM, Kienzle C, Carreras-Sureda A, Valverde M, Malhotra V. Cab45 is required for Ca(2+)-dependent secretory cargo sorting at the trans-Golgi network. **J Cell Biol.** 199:1057-66 (2012)
81. **Malhotra, V.** COPII vesicles get supersized by ubiquitin. **Cell.** 149:20-21 (2012)
82. Curwin, A.J., VonBlume, J and **Malhotra, V.** Cofilin dependent export of specific cargo from the Golgi. **Mol. Biol. Cell.** 23: 2327-2338 (2012).
83. Wakana, Y., Felix Meissner, F., van Galen, J., Mann, M, and **Malhotra, V.** A new class of carriers that transport selective cargo from the TGN to the cell surface. **EMBO J** 31:3976-90 (2012).
84. Rossella Venditti, Tiziana Scanu, Michele Santoro, Giuseppe Di Tullio, Alexander Spaar, Renato Gaibisso, Galina V. Beznoussenko, Alexander A. Mironov, Alexander Mironov jr, Leopoldo Zelante, Maria Rosaria Piemontese, Notarangelo Angelo, **Vivek Malhotra**, Barbara M. Vertel, Cathal Wilson, Maria Antonietta De Matteis. Sedlin controls the ER export of procollagen by regulating the Sar1GTP cycle. **Science** 337: 1668-1672 (2012).
85. Juan M. Duran, Felix Campelo., Josse van Galen., Timo Sachsenheimer., Jesús Sot., Mikhail V. Egorov., Carles Rentero., Carlos Enrich., Roman S. Polishchuk., Félix M. Goñi., Britta Brügger., Felix Wieland, and **Vivek Malhotra.** Sphingomyelin organization is required for vesicle biogenesis at the Golgi complex. **EMBO J.** 31:4535-46 (2012).
86. Julien Villeneuve. Margherita Scarpa., Maria Ortega Bellido, and **Vivek Malhotra.** MEK1 inactivates Myt1 to regulate Golgi membrane fragmentation and mitotic entry in mammalian cells. **EMBO J.** 32:72-85 (2013).
87. Catherine Rabouille., **Vivek Malhotra**, and Walter Nickel. Functional and Structural Diversity of Unconventional Secretory Mechanisms. **J. Cell Science.** 125: 5251-5255 (2013).
88. Suresh Subramani and **Vivek Malhotra.** Non-autophagic roles of autophagy-related proteins. **EMBO Reports.** 14: 143-151 (2013).
89. Sandra Mitrovic, Cristina Nogueira, Gerard Cantero-Recasens, Kerstin Kiefer, José M.Fernández-Fernández, Jean-François Popoff, Laetitia Casano, Frederic Bard, Raul Gomez1, Miguel A. Valverde and **Vivek Malhotra.** TRPM5-mediated calcium uptake regulates mucin secretion from human colon goblet cells. *Elife.* 2:e00658. doi: 10.7554/eLife.00658. Print (2013).
90. Vivek Malhotra. Unconventional protein secretion: an evolving mechanism. **EMBO J.** 32:1660-1664 (2013).
91. David Cruz-Garcia, Maria Ortega-Bellido, Margherita Scarpa, Julien Villeneuve, Marko Jovic, Marc Porzner, Tamas Balla, Thomas Seufferlein, and **Vivek Malhotra.** PI(4)P-dependent recruitment of arfaptins to the trans-Golgi network and their involvement in cargo export. **EMBO J.** 32:1717-1729 (2013).
92. Yuichi Wakana, Julien Villeneuve, Josse van Galen, David Cruz-Garcia, Mitsuo Tagaya, and **Vivek Malhotra.** The kinesin Eg5 moves CARTS during protein secretion in non-mitotic cells. **J. Cell Biol.** 202: 241-250 (2013).

93. Nogueira C, Erlmann P, Villeneuve J, Santos AJ, Martínez-Alonso E, Martínez-Menárguez JÁ, **Vivek Malhotra**. SLY1 and Syntaxin 18 specify a distinct pathway for procollagen VII export from the endoplasmic reticulum. **Elife** (Cambridge). May 19;3:e02784. doi: 10.7554/eLife.02784 (2014).
94. van Galen J, Campelo F, Martínez-Alonso E, Scarpa M, Martínez-Menárguez JÁ, **Vivek Malhotra**. Sphingomyelin homeostasis is required to form functional enzymatic domains at the trans-Golgi network. **J Cell Biol**. 206: 609-18 (2014).
95. Cruz-Garcia D, Curwin AJ, Popoff JF, Bruns C, Duran JM, **Malhotra V**. Remodeling of secretory compartments creates CUPS during nutrient starvation. **J Cell Biol**. 207:695-703 (2014).
96. **Malhotra V**, Marder E. The pleasure of publishing. **Elife**. 6;4. doi: 10.7554/eLife.05770 (2015).
97. **Malhotra V**, Erlmann P, Nogueira C. Procollagen export from the endoplasmic reticulum. **Biochem Soc Trans**. 43:104-7 (2015).
98. **Malhotra V**, Erlmann P. The Pathway of Collagen Secretion. **Annu Rev Cell Dev Biol**. 2015 Nov 13;31:109-24. doi: 10.1146/annurev-cellbio-100913-013002. Epub 2015 Sep 29.
99. Tiwari P, Kumar A, Das RN, **Malhotra V**, VijayRaghavan K. A Tendon Cell Specific RNAi Screen Reveals Novel Candidates Essential for Muscle Tendon Interaction. **PLoS One**. 2015 Oct 21;10(10):e0140976. doi: 10.1371/journal.pone.0140976. eCollection 2015.
100. Santos AJ, Raote I, Scarpa M, Brouwers N, **Malhotra V**. TANGO1 recruits ERGIC membranes to the endoplasmic reticulum for procollagen export. **Elife**. 2015 Nov 14;4. pii: e10982. doi: 10.7554/eLife.10982.
101. Curwin AJ, Brouwers N, Alonso Y Adell M, Teis D, Turacchio G, Parashuraman S, Ronchi P, **Malhotra V**. ESCRT-III drives the final stages of CUPS maturation for unconventional protein secretion. **Elife**. Apr 26;5. pii: e16299. doi: 10.7554/eLife.16299. (2016).
102. Santos AJ, Nogueira C, Ortega-Bellido M, **Malhotra V**. TANGO1 and Mia2/cTAGE5 (TALI) cooperate to export bulky pre-chylomicrons/VLDLs from the endoplasmic reticulum. **J Cell Biol**. May 9;213(3):343-54. doi: 10.1083/jcb.201603072. Epub 2016 May 2. (2016).
103. Villeneuve J, Duran J, Scarpa M, Bassaganyas L, Van Galen J, **Malhotra V**. Golgi enzymes do not cycle through the endoplasmic reticulum during protein secretion or mitosis. **Mol Biol Cell**. Jan 1;28(1):141-151. doi: 10.1091/mbc.E16-08-0560. (2017).
104. Raote I, Ortega Bellido M, Pirozzi M, Zhang C, Melville D, Parashuraman S, Zimmermann T, **Malhotra V**. TANGO1 assembles into rings around COPII coats at ER exit sites. **J Cell Biol**. Apr 3;216(4):901-909. (2017).
105. Capasso S, Sticco L, Rizzo R, Pirozzi M, Russo D, Dathan NA, Campelo F, van Galen J, Hölttä-Vuori M, Turacchio G, Hausser A, **Malhotra V**, Riezman I, Riezman H, Ikonen E, Luberto C, Parashuraman S, Luini A, D'Angelo G. Sphingolipid metabolic flow controls

phosphoinositide turnover at the *trans*-Golgi network. **EMBO J.** May 10. pii: e201696048. doi: 10.15252/embj.201696048. [Epub ahead of print] (2017).

106. Campelo, F., van Galen, J., Turacchio, G., Parashuraman, S., Kozlov, M., Garcia-Parajo, M, and **Malhotra, V.** Sphingomyelin metabolism controls the shape and function of the Golgi cisternae. **Elife.** May 13;6. pii: e24603. doi: 10.7554/eLife.24603. [Epub ahead of print] (2017).

107. Cruz-Garcia, D., Brouwers, N., Duran, J., Curwin, A. J, and **Malhotra, V.** Requirement of a A di-acidic motif for unconventional secretion of wild type and ALS linked mutant SOD1. In review. **J Cell Biol.** Aug 9. pii: jcb.201704056. doi: 10.1083/jcb.201704056. 2017

108. Villeneuve J, Bassaganyas L, Lepreux S, Chiritoiu M, Costet P, Ripoché J, **Malhotra V***, Schekman R* (*co-correspondents). Unconventional secretion of FABP4 by endosomes and secretory lysosomes. **J Cell Biol.** Dec 6. pii: jcb.201705047. doi: 10.1083/jcb.201705047. [Epub ahead of print]. (2017).

109. Ashe, S., **Malhotra, V** and Padinjat, R. Protein Kinase D regulates metabolism and growth by controlling secretion of insulin like peptides. **Dev. Biol.** 434: 194-201(2018).

110. Raote, I., Bellido, M., Santos, A., Foresti, O., Zhang, C., Parajo, M., Campelo, F and **Malhotra, V.** TANGO1 builds a machine for collagen export by recruiting and spatially organizing COPII, tethers and membranes. **Elife.** Mar 7;7. pii: e32723. doi: 10.7554/eLife.32723. [Epub ahead of print] (2018).

111. Cruz, D*, **Malhotra, V*** and Curwin, A*. Unconventional protein secretion triggered by nutrient starvation. **Seminars in Cell and Developmental Biology.** Feb 28. pii: S1084 9521(18)30003-X. doi: 10.1016/j.semcdb.2018.02.021. [Epub ahead of print] (* equal contributions). (2018).

112. Cantero-Recasens G, Butnaru CM, Valverde MA, Naranjo JR, Brouwers N, **Malhotra V.** KChIP3 coupled to Ca²⁺ oscillations exerts a tonic brake on baseline mucin release in the colon. **Elife.** 2018 Oct 1;7. pii: e39729. doi: 10.7554/eLife.39729.

113. Cantero-Recasens G, Butnaru CM, Brouwers N, Mitrovic S, Valverde MA, **Malhotra V.** Sodium channel TRPM4 and sodium/calcium exchangers (NCX) cooperate in the control of Ca₂₊-induced mucin secretion from goblet cells. **J Biol Chem.** 2019. 294: 816-826.

114. Raote, I and **Malhotra, V.** Protein transport by vesicles and Tunnels. **J. Cell Biol.** 2019 218(3):737-739.

115. Chiritoiu, M., Brouwers, N., Turacchio, G., Pirozzi, M, and **Malhotra, V.** GRASP55 and UPR control interleukin-1 β aggregation and secretion. **Developmental Cell.** 2019. 49(1):145-155.

116. Lekszas C., Foresti, O., Raote, I., Liedtke, D., Konig, EM., Nanda, I., Vona, B., **Malhotra, V*** and Haaf, T* (* co-corresponding authors). Biallelic *TANGO1* mutations cause a novel syndromal disease due to hampered cellular collagen secretion. **Elife.** 2020 Feb 26;9. pii: e51319. doi: 10.7554/eLife.51319.

117. Cruz, D., Brouwers, N., **Malhotra, V*** and Curwin, A. J* (* co-corresponding authors). Reactive oxygen species (ROS) triggers unconventional secretion of antioxidants and Acl1. **J Cell Biol.** 2020. 219(4):e201905028. doi: 10.1083/jcb.201905028.
118. Raote, I., Ernst, A.M., Campelo, F., Rothman, J.E., Pincet, F., and **Malhotra, V.** TANGO1 membrane helices create a lipid diffusion barrier at curved membranes **Elife.** 2020. Elife. 2020 May 26;9:e57822. doi: 10.7554/eLife.57822.
119. Grond, R., Veenendaal, T., Duran, J., Raote, I., Delgrou, L., Benaissa El Haddouti, **Malhotra, V*** and Rabouille, C*. (* co-corresponding authors). The function of GORASPs in Golgi apparatus organization in vivo. **J. Cell Biol.** 2020. 219(9):e202004191. doi: 10.1083/jcb.202004191.
120. Raote, I*, Chabanon, M*, Walani, N., Arroyo, M., Garcia-Parajo, M.F, Vivek **Malhotra, V***, and Campelo, F*. (*Co-corresponding authors*). A physical mechanism of TANGO1-mediated bulky cargo export. **Elife.** 2020 Nov 10;9:e59426. doi: 10.7554/eLife.59426.
121. Raote, I and **Malhotra, V.** Tunnels for cargo export from the endoplasmic reticulum. **Ann. Rev. Biochem.** 2021. 90:605-630. doi: 10.1146/annurev-biochem-080120-022017.
122. Durán M, Burballa C, Cantero-Recasens G, Butnaru CM, **Malhotra V**, Ariceta G, Sarró E, Meseguer A. Novel Dent Disease 1 cellular models reveal biological processes underlying CLC-5 loss-of-function. **Hum Mol Genet.** 2021 May 13;ddab131. doi: 10.1093/hmg/ddab131. Online ahead of print.PMID: 33987651
123. Raote, I., Saxena, S., Campelo, F and **Malhotra, V.** TANGO1 marshals the early secretory pathway for cargo export. 2021. **Biochim Biophys Acta Biomembr.** 2021 doi: 10.1016/j.bbamem.2021.183700. Epub 2021 Jul 19.PMID: 34293283
124. Cantero-Recasens G, Alonso-Marañón J, Lobo-Jarne T, Garrido M, Iglesias M, Espinosa L, and **Malhotra, V.** Reversing chemorefraction in colorectal cancer cells by controlling mucin secretion. 2022. **Elife** 2022;11:e73926 DOI: [10.7554/eLife.73926](https://doi.org/10.7554/eLife.73926).
125. Cantero-Recasens, G., Burballa, C., Ohkawa, Y., TFukuda, T., Harada, Y IBD Character Consortium., Curwin, A., Brouwers, N., Gian, A., Gu, J., Gut, I., Taniguchi, N, and **Malhotra, V.** The ulcerative colitis associated gene FUT8 regulates the quantity and quality of secreted mucins.PNAS. 2022. 119(43):e2205277119. doi: 10.1073/pnas.2205277119. Epub 2022 Oct 17.PMID: 36252012
126. Raote, I., Saxena, S., and **Malhotra, V.** Sorting and export of proteins at the endoplasmic reticulum. **Cold Spring Harbor Perspectives in Biology.** 2023 May 2;15(5):a041258. doi: 10.1101/cshperspect.a041258.PMID: 35940902
127. Lujan AL, Foresti O, Sugden C, Brouwers N, Farre AM, Vignoli A, Azamian M, Turner A, Wojnacki J, **Malhotra V.** Defects in lipid homeostasis reflect the function of TANGO2 in phospholipid and neutral lipid metabolism. **Elife.** 2023 Mar 24;12:e85345. doi: 10.7554/eLife.85345.
128. Wojnacki J, Lujan AL, Brouwers N, Aranda-Vallejo C, Bigliani G, Rodriguez MP, Foresti O, **Malhotra V.** Tetraspanin-8 sequesters syntaxin-2 to control biphasic release propensity of mucin granules. **Nat Comms.** 2023 Jun 22;14(1):3710. doi: 10.1038/s41467-023-39277-9.

129. Bunel, L., Pincet, L., **Malhotra, V.**, Raote, I, and Pincet, F. A model for collagen secretion by inter compartmental continuities. **Proc Natl Acad Sci U S A**. 2024 J121(1):e2310404120. doi: 10.1073/pnas.2310404120. Epub 2023 Dec 26.

130. Lujan, P., Garcia-Cabau, C., Wakana, Y., **Malhotra, V.**, Salvarella, X., Garcia-Parajo, M., Campelo, F. Sorting of secretory proteins at the trans-Golgi network by TGN46. **Elife**. 2024 Mar 11;12:RP91708. doi: 10.7554/eLife.91708.

131. Thierer, J., Foresti, O., Wison, M., Moll, T., Busch-Nentwisch, E., Morash, M., Mohlke, K.L., Rawl, J.F., **Malhotra, V.**, Hussain, M, and Farber, S. Pla2g12b and calcium are essential for nascent lipoprotein expansion. **Nat Commun**. 2024 Mar 7;15(1):2095. doi: 10.1038/s41467- 024-46102-4.

132. Ishier Raote., ...and **Malhotra, V.** TANGO1 inhibitors reduce collagen secretion and limit tissue scarring. **Nat. Commun**. 2024 Apr 24;15(1):3302. doi: 10.1038/s41467-024-47004-1.PMID: 38658535

133. Saxena, S., Foresti, O ., Liu, A., Androulaki, S... **Malhotra, V.** Endoplasmic reticulum exit sites are segregated for secretion based on cargo size. **Dev Cell**. 2024 Oct 7;59(19):2593-2608.e6. doi: 10.1016/j.devcel.2024.06.009. Epub 2024 Jul 10.PMID: 38991587

134. **Malhotra V.** Tailored assemblies of COPII proteins in secretion. **J Cell Biol**. 2024 Aug 5;223(8):e202404013. doi: 10.1083/jcb.202404013. Epub 2024 Jul 3.PMID: 38958655

135. Curwin, A., Kurokawa, K., Bigliani, G, Brouwers, N., Nakano, A, and **Malhotra, V.** CUPS and a modified late Golgi function in unconventional protein secretion. **J. Cell Biol**. 2025. 224(5):e202312120. doi: 10.1083/jcb.202312120

136. **Malhotra V.** Tailored assemblies of COPII proteins in secretion. **J Cell Biol**. 2024 Aug 5;223(8):e202404013. doi: 10.1083/jcb.202404013. Epub 2024 Jul 3.PMID: 38958655

137. Cebrian, I., ... **Malhotra, V.** Dendritic cell phagosomes recruit GRASP55 for export of antigen-loaded MHC molecules. **Cell Reports**. 2025. 44(2):115333. doi: 10.1016/j.celrep.2025.115333.

138. **Malhotra V.** The Pathways of Secretory Cargo Export at the Endoplasmic Reticulum. **Nat. Commun**. **2025**. 2025 Mar 3;16(1):2138. doi: 10.1038/s41467-025-57408-2.

139. Lujan, A., Forest, O., Wojnacki, J., Bigliani, G., Brouwers, N., Hashidate-Yoshida, H, and **Malhotra, V.** TANGO2 is an acyl-CoA binding protein.**J. Cell Biology**. 2025. 224(5):e202410001. doi: 10.1083/jcb.202410001.

140. Song, S.M., Sim, H.U., Noh, S.H., **Malhotra, V**, and Lee, M.G. ER tubular body: an ER derived compartment for redirecting autophagy to secretory functions. **Autophagy**. 2025. May 19. doi: 10.1080/15548627.2025.2508935.

141. Farhan H, Raote I, Campelo F, Ge L, Hirschberg K, Forrester A, Zanetti G, Lippincott-Schwartz J, Pastor-Pareja JC, Perez F, Saito K, **Malhotra V**. Towards a unified framework for the function of endoplasmic reticulum exit sites. **Nat Rev Mol Cell Biol**. 2025 Sep 29. doi: 10.1038/s41580-025-00899-0. Online ahead of print.PMID: 41023495

142. Bigliani, G., CBallaré, C., Wojnacki, J., Androulaki, S., Guitart, T., Blanco, E., Foresti, O., Lujan, L., Gebauer, F., Croce, L , and **Malhotra V**. TANGO6 coordinates transcription and translation through nucleocytoplasmic partitioning. **In review 2026**.