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Diseases (NIDDK), National Institutes of Health**Director**, Genomics Core, NIDDK, NIH**Chief**, Cell Biochemistry Section, LCMB, NIDDK, NIH**ADDRESS:** NIH, LCMB, NIDDK  
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PhD Tree: <http://phdtree.org/scholar/hanover-john-allan/>  
Academic Tree: <http://academictree.org/chemistry/tree.php?pid=78999>  
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Researchgate: [http://www.researchgate.net/profile/John\\_Hanover](http://www.researchgate.net/profile/John_Hanover)  
Wikegenes: <https://www.wikigenes.org/e/author/e/512020.html>  
Biographies: [http://m.jbc.org/content/289/50/34440/suppl/DCAuthor\\_profile\\_JAH](http://m.jbc.org/content/289/50/34440/suppl/DCAuthor_profile_JAH)  
<http://m.jbc.org/content/284/19/12593/suppl/DC1>  
<https://demystifyingmedicine.od.nih.gov/DM15/m4d28/bio-hanover-john.pdf>**RESEARCH INTERESTS:** Glycobiology, Epigenetics, Nuclear Transport, Cellular Signaling, Protein Sorting, Metabolic Disease, Diseases of Aging**EDUCATION:**

1976 - 1981	Ph.D., The Johns Hopkins University School of Medicine Department of Physiological Chemistry <b>Advisor: William J. Lennarz</b>
1971 - 1976	M.S. (eq.), Chemistry; University of Tulsa, Oklahoma B.S., Biology; University of Tulsa, Oklahoma

**PROFESSIONAL EXPERIENCE:**

2010 - present	<i>Chief, Laboratory of Cell and Molecular Biology</i> NIDDK, National Institutes of Health
1994 - 2010	<i>Chief, Laboratory of Cell Biochemistry and Biology,</i> NIDDK, National Institutes of Health

1991 - 1994	<i>Chief, Cell Biochemistry Section</i> Laboratory of Biochemistry and Metabolism, NIDDK, National Institutes of Health
1989 - 1991	<i>Research Chemist, Enzymes and Cellular Biochemistry Section,</i> Laboratory of Biochemistry & Metabolism, NIDDK, National Institutes of Health
1985 - 1989	<i>Senior Staff Fellow, Enzymes and Cellular Biochemistry</i> Section, Laboratory of Biochemistry & Metabolism, NIDDK, National Institutes of Health
1984 - 1985	<i>Senior Staff Fellow, Laboratory of Molecular Biology,</i> National Cancer Institute, National Institutes of Health
1981 - 1984	<i>Postdoctoral, Jane Coffin Childs Memorial Fund Fellow</i> Laboratory of Molecular Biology, <b>Advisor: Ira H. Pastan</b> National Cancer Institute, National Institutes of Health

**PROMOTION HISTORY:**

<b>2012 - present</b>	<b>Chief, LCMB, Senior Investigator USC Title 42</b>
<b>2006 - 2012</b>	<b>Senior Biomedical Research Service (SBRS)</b>
<b>1999 - 2006</b>	<b>Senior Investigator, USC Title 42</b>
<b>03/29/98</b>	<b>GS-15 (Title 5)</b>
<b>10/14/94</b>	<b>Promotion to Lab Chief, LCBB, NIDDK, NIH</b>
<b>10/21/90</b>	<b>GS-14</b>
<b>08/05/89</b>	<b>GS-13 (tenure)</b>

**EDITORIAL BOARDS:**

1988 - present	Executive Editor, <i>Analytical Biochemistry</i>
2015 – present	Editor, <i>Cancer Research</i>
2011 - present	Editor, <i>Biochem. Biophys Res. Comm.</i>
2007 - present	Editorial board, <i>Open Glycoscience</i>
1988 - 2008	Editorial board, <i>Archives of Biochemistry and Biophysics</i>
1991 - 1996	Editorial board, <i>Glycobiology</i>
Frequent Reviewer: <i>J. Cell Biol.</i> , <i>J. Cell Sci.</i> , <i>PNAS</i> , <i>J. Biol. Chem.</i> , <i>Nature Cell Biology</i> , <i>Nature</i> , <i>Cell</i> , <i>EMBO J.</i> , <i>Cell</i> , <i>J. Cell Sci</i>	

**HONORS/AWARDS:**

2014	Nancy Nossal Mentorship Award, NIDDK Director Award
2013	ORISE Invited Lectureship, Univ. San Juan, Puerto Rico
2011	Johns Hopkins University BSMB Alumni Lecture Award
2009	Robert B. Dickson Memorial Lecture, Georgetown Univ.
2006	Senior Biomedical Research Service (NIH)
2003	Carl Feldherr Tribute Lecture, Univ. of Florida

2000	Exceptional Service Award, NIGMS
1998	Staff Recognition Award, PHS, NIH
1992	Public Health Service Special Recognition Award
1981	Jane Coffin Childs Memorial Fund Fellowship
1975	Faculty Honor Award (Valedictorian)
1975	Rhodes Scholarship Nominee, Univ. of Tulsa, OK
1971	Bausch and Lomb Honorary Science Award

**BIBLIOGRAPHY:** (published in last 2 years from a total of 186 Peer reviewed Publications)

1. Olivier Van-Stichelen, S., Wang, P., Love, D. C., and **Hanover, J. A.** (2016) Defects in Metabolism and Neurogenesis in a Brain-Specific knockout of Mouse O-GlcNAcase *PNAS U. S. A.*, *submitted*
2. Kaneski, C. R., Brady, R. O., **Hanover, J. A.**, and Schueler, U. H (2016) Development of a Model System for Neuronal Dysfunction in Fabry Disease, *Mol Genet Metab*: 10.1016/j.ymgme.2016.07.010.
3. Wen, S., and **Hanover, J. A.**, (2016) Electrical Dipole Moment predicts glycan relative mobility in FACE gels, *Nature Chemistry*, *submitted*.
4. Akan, I., Love, D.C., Harwood, K., Bond, M.R., **Hanover, J.A.** (2016) *Drosophila* O-GlcNAcase deletion globally perturbs chromatin O-GlcNAcylation. *J Biol Chem* 016 Mar 8. 10.1074/jbc. M115.704783
5. Klionsky, et al., **Hanover, J. A.**, others (2016) Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). *Autophagy* 12, 1-222.
6. Olivier-Van Stichelen, and **Hanover, J. A.** (2015) You Are What You Eat: O-linked N-acetylglucosamine in Disease, Development and Epigenetics *Curr. Opin. Clin. Nutr and Metabol Care*, 18, 339-345.
7. Schueler, U., Kaneski, C., Remaley, A., Demosky, S., Dwyer, N., Blanchette-Mackie, J., **Hanover, J.**, Brady, R. (2015) A Short Synthetic Peptide Mimetic of Apolipoprotein A1 Mediates Cholesterol and Globotriaosylceramide Efflux from Fabry Fibroblasts. *JIMD Rep* Date: 19 December 2015, pp 1-12
8. Bond, M. R., and **Hanover, J. A.** (2014) A Little Sugar Goes a Long Way: The Cell Biology of O-GlcNAcylation. *J. Cell Biol.*, 208, 869-880.
9. Keembiyehetty, C., Love, D. C., Harwood, K. R., Gavrilova, O., Comly,

- M. E., and **Hanover, J. A.** (2014) Conditional Knockout Reveals a Requirement for O-GlcNAcase in Metabolic Homeostasis. J. Biol. Chem., 290, 7097-7113.
10. Lewis, B. A. and **Hanover, J. A.**, O-GlcNAc and the Epigenetic Regulation of Gene Expression. (2014) J. Biol. Chem., 289, 34440-34448.
  11. Vigetti, D., Deleonibus, S., Moretto, P., Bowen, T., Fischer, J. W., Grandoch, M., Oberhuber, A., Love, D. C., **Hanover, J. A.**, Cinquetti, R., Karousou, E., Viola, M., D'Angelo, M. L., Hascall, V. C., De Luca, G., and Passi, A. (2014) Natural Antisense Transcript for Hyaluronan Synthase 2 (HAS2-AS1) Induces Transcription of HAS2 via Protein O-GlcNAcylation. J. Biol. Chem., 289, 28816-28826.
  12. Bakalov, V. K., Gharib, A. M., Cheng, C. M. Zhou, J., Love, D. C., Zirzow, A., Rosing, D. R. Hadnott, T. N., Nayeck, J., Bondy C, and **Hanover, J. A.** (2014) Inheritance of Maternal X-chromosome and Increased Risk of Coronary Artery Atherosclerosis. Journal of Medical Genetics, *in revision*.
  13. Ghosh, S. K., Bond, M. R., Love, D. C., Ashwell, G. A., Krause, G. W., and **Hanover, J. A.** (2014) Disruption of O-GlcNAc cycling in *C. elegans* perturbs Nucleotide Sugar pools and Complex Glycans. Front. Endocrinol. 5, 197.
  14. Bond, M. R., Ghosh, S. and **Hanover, J. A.** (2014) Conserved nutrient sensor O-GlcNAc transferase is integral to the *C. elegans* pathogen-specific immune response. PLOS ONE 9: e113231.
  15. Kim, E. J., M. R. Bond, D. C. Love, **Hanover, J. A.** (2014) Chemical tools to explore nutrient-driven O-GlcNAc cycling. Crit. Rev. Biochem. Mol. Biol., 49, 327-342.
  16. Kim, E. J., Abramowitz, L. K., Bond, M. R., Love, D. C., Kang, D. W., Luecke, H. F., Kang, D. W., Ahn, J. S. and **Hanover, J. A.**, Versatile O-GlcNAc Transferase Assay for High-throughput Identification of Enzyme Variants, substrates and inhibitors. Bioconjug. Chem., 25, 1025-1030.
  17. Olivier-Van Stichelen, S., L. K. Abramowitz, **Hanover, J. A.** (2014) X marks the spot: Does it matter that O-GlcNAc Transferase is an X-linked gene? Biochem. Biophys. Res. Commun, 453, 201-207.
  18. Olivier-Van Stichelen, S., and **Hanover, J. A.** (2014) X-inactivation normalizes O-GlcNAc Transferase Levels and Generates an O-GlcNAc-depleted Barr body. Front. Genet. 5, 256.

19. Abd-Elmoniem, K. Z., Bakalov, V. K., Matta, J. R., Muldoon, N., **Hanover, J. A.**, Bondy, C. A., Gharib, A. M. (2014) X Chromosome Parental Origin and Aortic Stiffness in Turner Syndrome. Clinical Endocrinol., *81*, 467-470.
20. Harwood, K and **Hanover, J. A.** (2014) O-GlcNAc Cycling: Think Globally but Act Locally. J. Cell Sci., *127*, 1857-1867.
21. Abramowitz, L. K., Olivier-Van Stichelen, S., and **Hanover, J. A.**, (2014) Chromosome Imbalance as a Driver of Sex Disparity in Disease. J. of Genomics, *2*, 77-88.