

JAY D. HORTON, M.D.

CURRICULUM VITAE

DATE & PLACE OF BIRTH

February 25, 1962; Fairfield, IA

PRESENT ADDRESS

University of Texas Southwestern Medical Center at Dallas
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PROFESSIONAL TRAINING

- 1980-1984 B.S., Zoology, University of Iowa, Iowa City, IA, with Honors and Distinction.
- 1984-1988 M.D., University of Iowa College of Medicine, Iowa City, IA.
- 1988-1991 Residency in Internal Medicine, University of Texas University of Texas Southwestern Medical Center at Dallas.
- 1991-1994 Fellowship in Gastroenterology, University of Texas University of Texas Southwestern Medical Center at Dallas.
- 1994-1997 Howard Hughes Postdoctoral Fellowship for Physicians, University of Texas Southwestern Medical Center at Dallas.
- 1997-2003 Assistant Professor, Department of Internal Medicine, University of Texas Southwestern Medical Center at Dallas.
- 1999-2003 Assistant Professor, Department of Molecular Genetics (secondary appointment), University of Texas Southwestern Medical Center at Dallas.
- 2003-2007 Associate Professor, Departments of Internal Medicine and Molecular Genetics (secondary appointment), University of Texas Southwestern Medical Center at Dallas.
- 2007-Present Professor and Dr. Robert C. Atkins and Veronica Atkins Chair in Obesity and Diabetes Research in the Departments of Internal Medicine and Molecular Genetics (secondary appointment), University of Texas Southwestern Medical Center at Dallas.
- 2012-2013 Interim Chief of Digestive and Liver Diseases, University of Texas Southwestern Medical Center at Dallas.
- 2013-2016 Chief of Digestive and Liver Diseases, University of Texas Southwestern Medical Center at Dallas.
- 2015-Present Director of the Center for Human Nutrition

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EXAMINATIONS

1988 Flex Exam
1991 American Board of Internal Medicine
1995, 2005, 2016 American Board of Gastroenterology

HONORS AND AWARDS

1984 Honors Certificate of Achievement, University of Iowa
1983-1984 President's List
1982-1984 Dean's List
1981-1984 Scholastic Citation List for Honors Convocation
1982-1984 University of Iowa Honor Society Member
1999-2002 ADHF/AGA Industry Research Scholar Award
2000 NIH GMA 2 Study section (ad hoc)
2000-2004 American Heart Established Investigator
2000-2004 PEW Scholar
2002 NIH SSS-3 Study Section reviewer
2003 NIH Metabolism Study Section (ad hoc)
2003 Elected to American Society for Clinical Investigation
2003-2011 Consulting Editor for The Journal of Clinical Investigation
2003-Present Consultant for Merck
2004-2008 Kern Aspen Lipid Conference Board Member
2004-2008 NIH Integrative Nutrition and Metabolic Processes Study Section
2004-2009 Consultant Metabasis Therapeutics
2005-2008 Consulting Editor for The Journal of Lipid Research
2005-2006 Consultant for Amgen
2005-Present Consultant for Pfizer
2005-2008 Reviewer for the AGA Industry Research Scholar Awards
2006-Present Dr. Robert C. Atkins and Veronica Atkins Chair in Obesity and Diabetes Research
2006-2008 Scientific Advisory Board for Aegerion
2006 Organizer of the Kern Aspen Lipid Conference
2007-Present Consultant for Novartis
2007 Recipient of the University of Iowa Carver College of Medicine's Distinguished Alumnus Award for Early Career Achievement
2008 Elected to Association of American Physicians
2008-Present Associate Editor of The Journal of Lipid Research
2009 Organizer of the Deuel Lipid Conference
2010 NIH Special Emphasis Panel ZRG1 EMNR-B
2008-2014 AHA Irvine H. Page Young Investigator Research Award Selection Committee, Chair 2010-2012
2011 Fellow of the American College of Physicians
2012 NIH Nutrition Obesity Research Centers (P30)
2012 NIH Special Emphasis Panel ZRG1 EMNR-E
2012-Present Associate Editor for Arteriosclerosis, Thrombosis, and Vascular Biology
2012 ATVB Special Recognition Award in Arteriosclerosis
2013-Present Scientific Advisory Board, Catabasis

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- 2014-Present Scientific Advisory Board, Cardiometabolic, Merck
2015 Co-Organizer of Keystone Meeting: Metabolic Syndrome: Mitochondria and Energy Expenditure/Liver Metabolism and Nonalcoholic Fatty Liver Disease
2015 NIH Special Emphasis Panel/Scientific Review Group 2015/10 ZDK1 GRB-9
2015-2018 ASCI Council Member
2015-Present Distinguished Chair in Human Nutrition
2015-Present The Scott Grundy Director's Chair
2016 American Association of Clinical Endocrinologists Frontiers in Science Award
2017 NIH INMP Study Section-ad hoc
2020 NIH INMP Study Section-ad hoc
2020 Organizer of the Deuel Lipid Conference
2020-Present NIH, Board of Scientific Counselors, National Institute of Diabetes, Digestive and Kidney Diseases
2022-Present NIH, Chair of Board of Scientific Counselors, National Institute of Diabetes, Digestive and Kidney Diseases

INVITED PRESENTATIONS

- 1999 European Atherosclerosis Society Meeting and KOS Satellite Conference, Athens, Greece
1999 Glaxo Wellcome, Research Triangle Park, NC
2000 Deuel Lipid Conference, Stevenson, WA
2000 Gordon Conference, Lipoprotein Metabolism, Meriden, NH
2000 Kern Aspen Lipid Conference, Aspen, CO
2000 Dept. of Biochemistry, University of Minnesota, Minneapolis, MN
2000 Parke-Davis, Ann Arbor, MI
2000 HDL Consultation Meeting, Paris, France. Pfizer.
2001 Affymetrix, Santa Clara, CA
2001 VISN 17 Research Conference, Dallas VA Medical Center
2001 Lynx Inc., Haywood, CA
2001 Dept. of Pathology, Wake Forest School of Medicine, Winston-Salem, NC
2001 Dept. of Biochemistry, University of Wisconsin, Madison, WI
2001 Banting and Best Diabetes Centre, University of Toronto, Toronto, Canada
2001 Obesity and CVD Working Group Meeting, NIH, Bethesda, MD
2001 Division of Endocrinology, Washington University, St. Louis, MO
2001 Division of Endocrinology, Baylor College of Medicine, Houston, TX
2002 Dept. of Physiology, University of Massachusetts, Worcester, MA
2002 Dept. of Molecular and Cellular Physiology, LSU, Shreveport, LA
2002 Suntory Pharmaceutical Research Laboratories, Cambridge, MA
2002 Symposium and Training X: Understanding Metabolism in the Mouse, Rogers NMR, Dept. Radiology, UT Southwestern Medical Center
2002 Biochemical Society Meeting No. 667, Cardiff University, Cardiff, Wales
2002 67th Cold Spring Harbor Symposium on Quantitative Biology: The Cardiovascular System, Cold Springs Harbor, NY

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- 2003 FASEB: Molecular Biology of Intestinal Lipid Transport and Metabolism, Snow Mass, CO
- 2003 European Lipoprotein Club, Keynote, Tutzing, Germany
- 2003 Nobel Conference “Transcriptional control of lipid homeostasis”, Stockholm, Sweden
- 2003 Bay Area Lipid Club, San Francisco, CA
- 2004 Pennington Symposium, “Pathogenesis of the Metabolic Syndrome,” Baton Rouge, LA
- 2004 5th Annual Conference on Arteriosclerosis, Thrombosis, and Vascular Biology, Co-Chair and Speaker in Lipid Trafficking Session, San Francisco, CA
- 2004 Endocrinology Grand Rounds, University of Colorado, Denver, CO
- 2004 Gordon Conference, Lipoprotein Metabolism, Meriden, NH
- 2004 AASLD Basic Science Workshop, “Liver, Lipids and Lipotoxicity,” Boston MA
- 2004 Merck & Co. Keynote speaker atherosclerosis division retreat.
- 2005 American Society of Nephrology, “Nuclear Receptors and our Craving for More Sugar and Fat,” Philadelphia, PA
- 2005 AASLD Focus Study Group 2, “Interactions of Statin Drugs with NAFLD: Risk or benefit or neither,” San Francisco, CA
- 2005 American Gastroenterological Association Clinical Congress, “Pathogenic Mechanisms of NAFLD,” Hollywood, FL
- 2006 George Washington University, Cardiology Grand Rounds
- 2006 University of Alabama, Nutrition Center Grand Rounds
- 2006 Avison Biomedical Symposium, Yonsei University College of Medicine, Seoul, Korea
- 2006 Distinguished Scientist Seminar, University of South Alabama
- 2006 Endocrinology Grand Rounds, UT San Antonio
- 2006 FASEB: Molecular Biology of Intestinal Lipid Transport and Metabolism, Tucson, AZ
- 2006 Gordon Conference on Lipoprotein Metabolism, South Hadley, MA
- 2006 AASLD Clinical Research Single Topic Conference: Alcoholic and Non-Alcoholic Steatohepatitis. Atlanta, Georgia
- 2006 NIH NIDDK Workshop on Lipodystrophy, Bethesda, MD
- 2006 International Symposium on Lipoprotein Receptors: From Cell Biology to Disease, Santiago, Chile
- 2007 Keystone Symposium on Metabolic Syndrome and Cardiovascular Risk, Steamboat Springs, CO
- 2007 Gordon Conference on Molecular and Cellular Biology of Lipids, Waterville Valley Resort, N H
- 2007 Kern Aspen Lipid Conference, Aspen, CO
- 2007 BioSymposia, Disorders of Lipid Metabolism, San Diego, CA
- 2007 Endocrinology Grand Rounds, University of Colorado, Denver, CO
- 2008 Gordon Conference: Plasminogen Activation & Extracellular Proteolysis, Ventura Harbortown Resort, CA
- 2008 Deuel Conference on Lipids, Coronado, CA
- 2008 American Diabetes Association 68th Scientific Session, San Francisco, CA
- 2008 Gordon Conference: Proprotein Processing, Trafficking & Secretion, Colby-Sawyer College in New London, NH
- 2008 Gordon Conference: Lipoprotein Metabolism, Waterville Valley, NH

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- 2008 Gordon Conference: Proteolytic Enzymes & Their Inhibitors, Colby-Sawyer College in New London, NH
- 2008 3rd Annual NLA Masters Summit, AHA Meeting, New Orleans, LA
- 2009 Keystone Symposium on Type 2 Diabetes and Insulin Resistance/Obesity: Novel Aspects of Regulation of Body Weight. Banff Springs, Banff, Canada
- 2009 JLR 50th Anniversary Lecture at ATVB Meeting, Washington D.C.
- 2009 Obesity and Fatty Liver Disease, Digestive Disease Week 2009 in Chicago, IL
- 2009 Gordon Conference on Molecular and Cellular Biology of Lipids, Waterville Valley Resort, NH
- 2009 Falk Symposium: Liver and Metabolic Syndrome. Hannover, Germany
- 2009 Annual International Conference of Korean Society of Medical Biochemistry and Molecular Biology. Plenary Lecture. Seoul, Korea
- 2009 UT Southwestern University Lecture
- 2010 Gordon Conference: Lipoprotein Metabolism, Waterville Valley, NH
- 2011 UT Southwestern President's Lecture
- 2011 LIPID MAPS Annual Meeting: Lipidomics Impact on Cell Biology, Cancer, and Metabolic Diseases
- 2011 34th Steenbock Symposium, Madison, WI
- 2012 Deuel Conference on Lipids, Palm Springs, CA
- 2012 The Academy of Medicine, Engineering and Sciences of Texas, Houston, TX
- 2012 International Biosciences of Lipids, Banff, Alberta, Canada
- 2012 5th Annual Diabetes Conference of Wisconsin, Milwaukee, WI
- 2012 Banting and Best Diabetes Centre, University of Toronto, Toronto, Canada
- 2013 New York Lipid Club, New York, NY
- 2013 Internal Medicine Grand Rounds, Columbia University, New York, NY
- 2013 Endocrinology Grand Rounds, Columbia University, New York, NY
- 2013 Kern Lipid Conference, Vail, CO
- 2013 Endocrinology Grand Rounds, Beth Israel Hospital, Harvard Medical School, Boston, MA
- 2013 Liver Center Seminar Speaker, UCSF, San Francisco, CA
- 2013 AHA Scientific Sessions, Dallas, TX
- 2013 Diabetes Center Lecture, University of Chicago, Chicago, IL
- 2013 Cardiology Grand Rounds, Northwestern University, Chicago, IL
- 2014 Deuel Conference on Lipids, The Francis Simon Lecture San Diego, CA
- 2014 Digestive Disease Week, The Dr. Charles S. Lieber Lecture, Chicago, IL
- 2014 Gordon Conference: Lipoprotein Metabolism, Waterville Valley, NH
- 2014 FASEB: Nutrient Sensing and Metabolic Signaling, Big Sky, MT
- 2014 AHA Scientific Sessions, Chicago, IL
- 2014 Keystone Meeting: Lipid Pathways, Dublin Ireland
- 2014 World Congress of Cardiology, Melbourne, Australia
- 2014 The 9th Metabolic Syndrome Type 2 Diabetes and Atherosclerosis Congress (MSDA2014), Kyoto, Japan
- 2014 Annual Meeting of the Society of Cell Biology, Puerto Varas, Chile
- 2015 Cold Spring Harbor Asia on Lipid Metabolism and Metabolic Disorders, Suzhou, China
- 2015 Tsinghua University, Beijing, China
- 2015 Lilly China Research and Development Center, Shanghai, China

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- 2015 UK Association for Clinical Biochemistry and Laboratory Medicine International Lecturer, Cardiff, Wales
- 2015 Keystone Meeting: Metabolic Syndrome: Mitochondria and Energy Expenditure / Liver Metabolism and Nonalcoholic Fatty Liver Disease. Whistler, BC, Canada
- 2015 Vanderbilt Institute of Chemical Biology, Nashville, TN
- 2015 University of Alberta, Edmonton, Alberta, Canada
- 2015 Rubinstein Lectureship, Canadian Lipoprotein Conference, Toronto, Ontario, Canada
- 2015 AHA ATVB/PVD Invited Speaker and Session Chair, San Francisco, CA
- 2016 Vanderbilt Gastroenterology Center Grand Rounds, Nashville, TN
- 2016 ASBMB EXPERIMENTAL BIOLOGY 2016, San Diego CA
- 2016 American Association of Clinical Endocrinologists Frontiers in Science Award Lecture, Orlando, FL
- 2016 ADA, New Orleans, LA
- 2016 FASEB Scientific Conference "Lipid Droplets: Dynamic Organelles in Metabolism and Beyond," Snowmass, CO
- 2016 Kern Lipid Conference, Vail, CO
- 2016 GI Grand Rounds, USC, Los Angeles, CA
- 2016 GI Grand Rounds, University of Pennsylvania, Philadelphia, PA
- 2016 Yale ICSNM Program, New Haven, CT
- 2017 The Ramanbhai Foundation 8th International Symposium: Advances in New Drug Discovery & Development. Ahmedabad, India
- 2017 Medical Grand Rounds-Priscilla White Lectureship at the Brigham and Women's Hospital, Boston, MA
- 2017 The Priscilla White Annual Lecture on Metabolism, Joslin Diabetes Center, Boston, MA
- 2017 Cold Spring Harbor Conferences Asia: Lipid Metabolism & Metabolic Disorders, Suzhou, China
- 2017 European Atherosclerosis Society, Prague, Czech Republic
- 2017 58th International Conference on the Bioscience of Lipids (ICBL), Zurich, Switzerland
- 2017 Wuhan International Symposium on Lipid Metabolism and Disease, Wuhan, China
- 2017 International Symposium of Genetics and Human Phonomics, Fudan University, Shanghai, China
- 2017 First Annual Conference of Clinical Rare Metabolic Disease Subsociety of the Biophysical Society of China, Nanjing, China
- 2017 DeWitt Goodman Seminar, Columbia University, New York, NY
- 2018 Second Annual Conference of the Chinese Society for Lipid Metabolism and Bioenergetics, Shanghai, China
- 2018 The Second Annual Conference of Clinical Rare Metabolic Disease Subsociety of the Biophysical Society of China, Nanjing, China
- 2018 Lunenfeld-Tanenbaum International Research Symposium, Toronto, Canada
- 2018 FASEB Scientific Conference "Nutrient Sensing and Metabolic Signaling," Snowmass, CO
- 2018 Kern Lipid Conference, Vail, CO
- 2018 16th Annual Biophysics Congress, Chengdu, China

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- 2018 Chilean Society of Physiological Sciences (SChCF) Annual Meeting, Huilo-Huilo Ecological Reserve, Chile
- 2018 Keynote speaker at annual postdoctoral symposium hosted by DUNES (Duke-NUS Early Career Scientists association) at Duke-NUS, Singapore
- 2018 Keynote speaker at UCLA third annual Cardiovascular Symposium, Los Angeles, CA
- 2018 Keynote speaker at NHLBI Working Group (WG), entitled "Hypertension: Barriers to Translation" Bethesda, MD
- 2019 Northwestern GI/Liver Grand Rounds, Chicago, IL
- 2019 Keynote Speaker at 2019 Fudan Forum on Liver Disease and Metabolism, Shanghai, China
- 2019 European Atherosclerosis Society, Maastricht, Netherlands
- 2019 5th Annual Conference of Chinese Stroke Association (CSA) & Tiantan International Stroke Conference 2019 (TISC 2019), Beijing, China
- 2019 University of Iowa, Frontiers in Obesity, Diabetes and Metabolism, Iowa City, IA
- 2019 Alcoholic and Nonalcoholic Steatohepatitis: Pathogenesis and Mechanisms of Liver Injury Joint NIAAA-NIDDK Research Workshop, Bethesda, MD
- 2020 University of Oklahoma, Harold Hamm Diabetes Center 17th Annual Research Symposium.
- 2021 Keystone Meeting: Fatty Liver Disease and Multi-System Complications. Organizer and speaker. Virtual.
- 2022 Korean Endocrinology Society, Seoul, Korea.
- 2022 ADA Meeting, New Orleans, LA
- 2022 Kern Lipid Conference, Vail, CO
- 2022 Johns Hopkins Endocrinology Grans Rounds, Virtual.

RESEARCH

- 1981-1984 Undergraduate Honors Research Project with Jane Hayes, Ph.D. Department of Zoology, University of Iowa. "Genetic Analysis of Diapause in the Milkweed Bug Oncopeltus fasciatus"
- 1985 Student Research Fellowship with Martin Sokoll, M.D. Department of Anesthesia, University of Iowa. "Effects of Succinylcholine Chloride on the Response of Fast and Slow Muscle in the Rabbit"
- 1987 Senior Honors Research Project with Jeffrey Field, M.D. Division of Gastroenterology, University of Iowa. "Effects of HMG-CoA Reductase Inhibition on Lipoprotein Secretion in Caco-2 Cultured Cells"
- 1991-1993 NIH Gastroenterology Research Fellowship with David Spady, M.D. and Jennifer Cuthbert, M.D. Division of Gastroenterology, University of Texas Southwestern Medical Center at Dallas
- 1994- 1997 Howard Hughes Postdoctoral Research Fellowship for Physicians with Joseph L. Goldstein, M.D. and Michael S. Brown, M.D. Department of Molecular Genetics, University of Texas Southwestern Medical Center at Dallas. "In Vivo Role of Transcription Factors for the LDL Receptor"

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PUBLICATIONS

1. J.D. Horton, J.A. Cuthbert and D.K. Spady. 1993. Dietary fatty acids regulate hepatic LDL transport by altering LDL receptor protein and mRNA levels. *J. Clin. Invest.* 92:743-749.
2. J.D. Horton, J.A. Cuthbert and D.K. Spady. 1994. Regulation of 7 α -hydroxylase by dietary psyllium in the hamster. *J. Clin. Invest.* 93:2084-2092.
3. J.D. Horton, J.A. Cuthbert and D.K. Spady. 1995. Regulation of hepatic 7 α -hydroxylase expression and response to dietary cholesterol in the rat and hamster. *J. Biol. Chem.* 270:5381-5387.
4. D.K. Spady, J.D. Horton and J.A. Cuthbert. 1995. Regulatory effects of n-3 polyunsaturated fatty acids on hepatic LDL uptake in the hamster and rat. *J. Lipid Res.* 36:1009-1020.
5. T.E. Willnow, A. Rohlmann, J.D. Horton, H. Otani, J.R. Braun, R.E. Hammer and J. Herz. 1996. RAP, a specialized chaperone, prevents ligand-induced ER retention and degradation of LDL receptor-related endocytic receptors. *EMBO J.* 15:2632-2639.
6. H. Shimano*, J.D. Horton*, R.E. Hammer, I. Shimomura, M.S. Brown and J.L. Goldstein. 1996. Overproduction of cholesterol and fatty acids causing marked liver enlargement in transgenic mice expressing truncated SREBP-1a. *J. Clin. Invest.* 98:1575-1584. * The first two authors contributed equally to this work.
7. I. Shimomura, H. Shimano, J.D. Horton, J.L. Goldstein and M.S. Brown. 1997. Differential expression of exons 1a and 1c in mRNAs for sterol regulatory element binding protein-1 in human and mouse organs and cultured cells. *J. Clin. Invest.* 99:838-845.
8. H. Shimano, J.D. Horton, I. Shimomura, R.E. Hammer, M.S. Brown and J.L. Goldstein. 1997. Isoform 1c of sterol regulatory element binding protein is less active than isoform 1a in livers of transgenic mice and in cultured cells. *J. Clin. Invest.* 99:846-854.
9. H. Shimano, I. Shimomura, R.E. Hammer, J. Herz, J.L. Goldstein, M.S. Brown and J.D. Horton. 1997. Elevated levels of SREBP-2 and cholesterol synthesis in livers of mice homozygous for a targeted disruption of the SREBP-1 gene. *J. Clin. Invest.* 100:2115-2124.
10. I. Shimomura, Y. Bashmakov, H. Shimano, J.D. Horton, J.L. Goldstein and M.S. Brown. 1997. Cholesterol feeding reduces nuclear forms of sterol regulatory element binding proteins in hamster liver. *Proc. Natl. Acad. Sci. USA.* 94:12354-12359.

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11. J.D. Horton, Y. Bashmakov, I. Shimomura and H. Shimano. 1998. Regulation of sterol regulatory element binding proteins in livers of fasted and refed mice. *Proc. Natl. Acad. Sci. USA.* 95:5987-5992.
12. J.D. Horton, I. Shimomura, M.S. Brown, R.E. Hammer, J.L. Goldstein and H. Shimano. 1998. Activation of cholesterol synthesis in preference to fatty acid synthesis in liver and adipose tissue of transgenic mice overproducing sterol regulatory element-binding protein-2. *J. Clin. Invest.* 101:2331-2339.
13. I. Shimomura, H. Shimano, B.S. Korn, Y. Bashmakov and J.D. Horton. 1998. Nuclear sterol regulatory element-binding proteins activate genes responsible for the entire program of unsaturated fatty acid biosynthesis in transgenic mouse liver. *J. Biol. Chem.* 273:35299-35306.
14. B.S. Korn, I. Shimomura, Y. Bashmakov, R.E. Hammer, J.D. Horton, J.L. Goldstein and M.S. Brown. 1998. Blunted feedback suppression of SREBP processing by dietary cholesterol in transgenic mice expressing sterol-resistant SCAP(D443N). *J. Clin. Invest.* 102:2050-2060.
15. J.D. Horton, H. Shimano, R.L. Hamilton, M.S. Brown and J.L. Goldstein. 1999. Disruption of LDL receptor gene in transgenic SREBP-1a mice unmasks hyperlipidemia resulting from production of lipid-rich VLDL. *J. Clin. Invest.* 103:1067-1076.
16. I. Shimomura, Y. Bashmakov and J.D. Horton. 1999. Increased levels of nuclear SREBP-1c associated with fatty livers in two mouse models of diabetes mellitus. *J. Biol. Chem.* 274:30028-30032.
17. I. Shimomura, Y. Bashmakov, S. Ikemoto, J.D. Horton, M.S. Brown and J.L. Goldstein. 1999. Insulin selectively increases SREBP-1c mRNA in the livers of rats with streptozotocin-induced diabetes. *Proc. Natl. Acad. Sci. USA.* 96:13656-13661.
18. S. Sebastian, J.D. Horton and J.E. Wilson. 2000. Anabolic function of the type II isozyme of hexokinase lipid synthesis. *Biochem. Biophys. Res. Commun.* 270:886-891.
19. J.J. Repa, E.G. Lund, J.D. Horton, E. Leitersdorf, D.W. Russell, J.M. Dietschy and S.D. Turley. 2000. Disruption of the sterol 27-hydroxylase gene in mice results in hepatomegaly and hypertriglyceridemia: reversal by cholic acid feeding. *J. Biol. Chem.* 275:39685-39692.
20. J. Zhang, J. Ou, Y. Bashmakov, J.D. Horton, M.S. Brown and J.L. Goldstein. 2001. Insulin blocks transcription of IRS-2 gene in rat liver through an insulin response element (IRE) that resembles the IREs of other insulin-repressed genes. *Proc. Natl. Acad. Sci. USA.* 96:3756-3761.

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21. M. Matsuda, B.S. Korn, R.E. Hammer, Y-A. Moon, R. Komuro, J.D. Horton, J.L. Goldstein, M.S. Brown and I. Shimomura. 2001. SREBP cleavage-activating protein (SCAP) is required for hepatic response to cholesterol deprivation and to insulin elevation. *Genes Dev.* 15:1206-1216.
22. Y-A. Moon, N.A. Shah, S. Mohapatra, J.A. Warrington and J.D. Horton. 2001. Identification of a mammalian long chain fatty acyl elongase regulated by sterol regulatory element-binding proteins. *J. Biol. Chem.* 276:45358-45366.
23. J. Yang, J.L. Goldstein, R.E. Hammer, Y-A. Moon, M.S. Brown and J.D. Horton. 2001. Decreased lipid synthesis in livers of mice with disrupted Site-1 protease gene. *Proc. Natl. Acad. Sci. USA.* 98:13607-13612.
24. G. Liang, J. Yang, J.D. Horton, R.E. Hammer, J.L. Goldstein and M.S. Brown. 2002. Diminished hepatic response to fasting/refeeding and LXR agonists in mice with selective deficiency of SREBP-1c. *J. Biol. Chem.* 277:9520-9528.
25. C. Vasandani, A.I. Kafrouni, Y. Bashmakov, M. Gotthardt, J.D. Horton and D.K. Spady. 2002. Upregulation of hepatic LDL transport by n-3 fatty acids in LDL receptor knockout mice. *J. Lipid Res.* 43:772-784.
26. L. Yu, J. Li-Hawkins, R.E. Hammer, K.E. Berge, J.D. Horton, J.C. Cohen and H.H. Hobbs. 2002. Overexpression of ABCG5 and ABCG8 promotes biliary cholesterol secretion and reduces absorption of dietary cholesterol. *J. Clin. Invest.* 110:671-680.
27. Y-A. Moon and J.D. Horton. 2003. Identification of two mammalian reductases involved in the two-carbon fatty acyl elongation cascade. *J. Biol. Chem.* 278:7335-7343.
28. J.D. Horton, I. Shimomura, S. Ikemoto, Y. Bashmakov, and R.E. Hammer. 2003. Overexpression of SREBP-1a in mouse adipose tissue produces adipocyte hypertrophy, increased fatty acid secretion, and fatty liver. *J. Biol. Chem.* 278:36652-36660.
29. J.D. Horton, N.A. Shah, J.A. Warrington, N.N. Anderson, S.W. Park, M.S. Brown, and J.L. Goldstein. 2003. Combined analysis of oligonucleotide microarray data from transgenic and knockout mice identifies direct SREBP target genes. *Proc. Natl. Acad. Sci. USA.* 100:12027-12032.
30. A.P. Beigneux, C. Kosinski, B. Gavino, J.D. Horton, W.C. Skarnes, and S.G. Young. 2004. ATP-citrate lyase deficiency in the mouse. *J. Biol. Chem.* 279: 9557-9564.
31. L.J. Engelking, H. Kuriyama, R.E. Hammer, J.D. Horton, M.S. Brown, J.L. Goldstein, and G. Liang. 2004. Overexpression of human Insig-1 in livers of transgenic mice inhibits SREBP processing and reduces insulin-stimulated lipogenesis. *J. Clin. Invest.* 113:1168-1175.

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32. K. Iizuka, R.K. Bruick, G. Liang, J.D. Horton, and K. Uyeda. 2004. Deficiency of carbohydrate response element binding protein (ChREBP) reduces lipogenesis as well as glycolysis. *Proc. Natl. Acad. Sci. USA*. 101: 7281-7286.
33. J.D. Browning, L.S. Szczepaniak, R. Dobbins, P. Nuremberg, J.D. Horton, J.C. Cohen, S.M. Grundy and H.H. Hobbs. 2004. Prevalence of hepatic steatosis in a large U.S. population: Impact of ethnicity. *Hepatology*. 40:1387-1395.
34. S.W. Park, Y.-A. Moon, J.D. Horton. 2004. Post-transcriptional regulation of low density lipoprotein receptor protein by proprotein convertase subtilisin/kexin type 9a in mouse liver. 2004. *J. Biol. Chem.* 279:50630-50638.
35. H. Kuriyama, G. Liang, L.J. Engelking, J.D. Horton, J.L. Goldstein, and M.S. Brown. 2005. Compensatory increase in fatty acid synthesis in adipose tissue of mice with conditional deficiency of SCAP in liver. *Cell Metab.* 1:41-51.
36. N.Y. Kalaany, K.C. Gauthier, A.M. Zavacki, P.P.A. Mammen, T. Kitazume, J.A. Peterson, J.D. Horton, D.J. Garry, A.C. Bianco, and D.J. Mangelsdorf. 2005. LXRs regulate the balance between fat storage and oxidation. *Cell Metab.* 1:231-244.
37. S. Rashid, D.E. Curtis, R. Garuti, N.N. Anderson, Y. Bashmakov, Y.K. Ho, R.E. Hammer, Y.-A. Moon, and J.D. Horton. 2005. Decreased plasma cholesterol and hypersensitivity to statins in mice lacking *Pcsk9*. *Proc. Natl. Acad. Sci. USA*. 102:5374-5379.
38. E.P. Beltroy, J.A. Richardson, J.D. Horton, S.D. Turley, and J.M. Dietschy. 2005. Cholesterol accumulation and liver cell death in mice with Niemann-Pick type C disease. *Hepatology*. 42:886-893.
39. L.J. Engelking, G. Liang, R.E. Hammer, K. Takaishi, H. Kuriyama, B.M. Evers, W-P. Li, J.D. Horton, J.L. Goldstein, M.S. Brown. 2005. Schoenheimer effect explained-Feedback regulation of cholesterol synthesis in mice mediated by Insig proteins. *J. Clin. Invest.* 115: 2489-2498.
40. M. Yi, J.D. Horton, J.C. Cohen, H.H. Hobbs, R.M. Stephens. 2006. WholePathwayScope: A comprehensive pathway-based analysis tool for high-throughput data. *BMC Bioinformatics*. 7:30.
41. Z. Zhao, Y. Tuakli-Wosornu, T.A. Lagace, L. Kinch, N.V. Grishin, J.D. Horton, J.C. Cohen, and H.H. Hobbs. 2006. Molecular characterization of loss-of-function mutations in PCSK9 and identification of a compound heterozygote. *Am. J. Hum. Genet.* 79:514-523.
42. T.A. Lagace, D.E. Curtis, R. Garuti, M.C. McNutt, S.W. Park, H.B. Prather, N. N. Anderson, Y.K. Ho, R.E. Hammer, and J.D. Horton. 2006. Secreted PCSK9

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- decreases LDL receptors in hepatocytes and livers of parabiotic mice. *J. Clin. Invest.* 116:2995-3005.
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PATENTS

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1. US 7,737,266 B2 “**RNAI Modulation of SCAP and Therapeutic Uses Thereof**”
Inventors: Pamela Tan Juergen Soutschek Jay D. Horton Michael S. Brown Joseph L. Goldstein Young-Ah Moon
Patent Issued: 4/5/2011
Patent Number: 7919613

2. “**Cell-Based PCSK9 Screening Assay**”
Inventors: Jay D. Horton Markey C. McNutt
Agents: CHALKER FLORES, LLP
Assignees: Board of Regents, The University of Texas System
Origin: DALLAS, TX US
IPC8 Class: AG01N3353FI
USPC Class: 435 76
Patent application number: 20090275053

RESEARCH SUPPORT

P01 HL160487, Horton (PI) 01/1/2022-12/31/2026
New Approaches to Reduce Residual Cardiovascular Risk
Role: PI of PPG and Project 2

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UT Southwestern NORC
Role: PI

MEMBERSHIPS

1. American College of Physicians
2. Texas Medical Association
3. Dallas County Medical Society
4. American Gastroenterological Association
5. American Association for the Study of Liver Diseases
6. American Heart Association
7. American Society for Biochemistry and Molecular Biology
8. American Society for Clinical Investigation
9. Association of American Physicians