

Tetsuya Hosooka, MD, PhD

Education

1994: M.D. in Tokushima University School of Medicine.

2002: Ph.D. in Kobe University Graduate School of Medicine.

Employment

2021-Present: Associate Professor, Department of Nutrition and Life Sciences, School of Food and Nutritional Sciences, and Graduate School of Integrated Pharmaceutical and Nutritional Sciences, University of Shizuoka.

2021-Present: Visiting Associate Professor, Division of Diabetes and Endocrinology, Kobe University Graduate School of Medicine.

2019-2021: Associate Professor, Division of Development of Advanced Therapy for Metabolic Disease, Kobe University Graduate School of Medicine.

2010-2019: Assistant Professor, Division of Diabetes and Endocrinology, Kobe University Graduate School of Medicine.

2008-2010: Postdoctoral Fellow, Division of Endocrinology, Diabetes, and Metabolism, Department of Medicine, Beth Israel Deaconess Medical Center, Harvard Medical School.

2007: COE Postdoctoral Fellow, Division of Diabetes and Endocrinology, Kobe University Graduate School of Medicine.

2002-2007: Postdoctoral Fellow, Division of Diabetes and Endocrinology, Kobe University Graduate School of Medicine.

1994-1998: Resident, Kobe Medical Center, Kobe Rosai Hospital, and Suma Red Cross Hospital.

Publications (2013-Present)

1. Kanagaki S, Tsutsui Y, Kobayashi N, Komine T, Ito M, Akasaka Y, Nagasawa M, Ide T, Omae N, Nakao K, Rembutsu M, Iwago M, Yonezawa A, Hosokawa Y, Hosooka T, Ogawa W, Murakami K. Activation of AMP-activated protein kinase (AMPK) by a small-molecule compound that inhibits AMPK interaction with prohibitins. *iScience*, in press, 2023.

2. The EMPA-KIDNEY Collaborative Group; Herrington WG, Staplin N, Wanner C, Green JB, Hauske SJ, Emberson JR, Preiss D, Judge P, Mayne KJ, Ng SYA, Sammons E, Zhu D, Hill M, Stevens W, Wallendszus K, Brenner S, Cheung AK, Liu ZH, Li J, Hooi LS, Liu W, Kadowaki T, Nangaku M, Levin A, Cherney D, Maggioni AP, Pontremoli R, Deo R, Goto S, Rossello X, Tuttle KR, Steubl D, Petrini M, Massey D, Eilbracht J, Brueckmann M, Landray MJ, Baigent C, Haynes R. Empagliflozin in Patients with Chronic Kidney Disease. *N Engl J Med*, 388: 117-127, 2023.
3. Imi Y, Ogawa W, Hosooka T (corresponding author). Insulin resistance in adipose tissue and metabolic diseases. *Diabetol Int*, in press, 2023.
4. Hirata Y, Nomura K, Kato D, Tachibana Y, Niikura T, Uchiyama K, Hosooka T, Fukui T, Oe K, Kuroda R, Hara Y, Adachi T, Shibasaki K, Wake H, Ogawa W. A Piezo1–KLF15–IL-6 axis mediates immobilization-induced muscle atrophy. *J Clin Invest*, in press. 2022.
5. Yoshida N, Yamashita T, Osone T, Hosooka T, Shinohara M, Kitahama S, Sasaki K, Sasaki D, Yoneshiro T, Suzuki T, Emoto T, Saito Y, Ozawa G, Hirota Y, Kitaoura Y, Shimomura Y, Okamatsu-Ogura Y, Saito M, Kondo A, Kajimura S, Inagaki T, Ogawa W, Yamada T, Hirata KI. *Bacteroides* spp. promotes branched-chain amino acid catabolism in brown fat and inhibits obesity. *iScience*, 24: 103342, 2021.
6. Yoshino K, Hosooka T (co-first and corresponding author), Shinohara M, Aokia C, Hosokawa Y, Imamori M, Ogawa W. Canagliflozin ameliorates hepatic fat deposition in obese diabetic mice: Role of prostaglandin E2. *Biochemical and Biophysical Research Communications*. 557: 62-68, 2021.
7. Kuramoto N, Nomura K, Kohno D, Kitamura T, Karsenty G, Hosooka T, Ogawa W. Role of PDK1 in skeletal muscle hypertrophy induced by mechanical load. *Sci Rep*. 11: 3447, 2021.
8. Nabatame Y, Hosooka T (co-first author), Aoki C, Hosokawa Y, Imamori M, Tamori Y, Okamatsu-Ogura Y, Yoneshiro T, Kajimura S, Saito M, Ogawa W. Kruppel-like factor 15 regulates fuel switching between glucose and fatty acids in brown adipocytes. *J Diabetes Investig*. 12: 1144-1151,

2021.

9. Hosooka T, Hosokawa Y, Matsugi K, Shinohara M, Senga Y, Tamori Y, Aoki C, Matsui S, Sasaki T, Kitamura T, Kuroda M, Sakaue H, Nomura K, Yoshino K, Nabatame Y, Itoh Y, Yamaguchi K, Hayashi Y, Nakae J, Accili D, Yokomizo T, Seino S, Kasuga M, Ogawa W. The PDK1-FoxO1 signaling in adipocytes controls systemic insulin sensitivity through the 5-lipoxygenase-leukotriene B4 axis. *Proc Natl Acad Sci U S A.* 117: 11674-11684, 2020.
10. Hirata Y, Nomura K, Senga Y, Okada Y, Kobayashi K, Okamoto S, Minokoshi Y, Imamura M, Takeda S, Hosooka T, Ogawa W. Hyperglycemia induces skeletal muscle atrophy via a WWP1/KLF15 axis. *JCI Insight.* 4: e124952, 2019.
11. Mizusaki N, Nomura K, Hosooka T, Shiomi M, Ogawa K, Tsunoda T, Tamori Y, Ogawa W. The Novel Lipid-Lowering Drug D-47 Ameliorates Hepatic Steatosis and Promotes Brown/Beige-Like Change of White Adipose Tissue in db/db Mice. *Kobe J Med Sci.* 65: E36-E43, 2019.
12. Okada K, Hosooka T, Shinohara M, Ogawa W. Modulation of lipid mediator profile may contribute to amelioration of chronic inflammation in adipose tissue of obese mice by pioglitazone. *Biochem Biophys Res Commun.* 505: 29-35, 2018.
13. Matsugi K, Hosooka T, Nomura K, Ogawa W. Thrombospondin 1 suppresses insulin signaling in C2C12 myotubes. *Kobe J. Med. Sci.* 62: E13-8, 2016.
14. Hosooka T, Ogawa W. A novel role for the cell cycle regulatory complex cyclin D1-CDK4 in gluconeogenesis. *J Diabetes Invest.* 7: 27-8, 2016.
15. Ijuin T, Hosooka T, Takenawa T. Phosphatidylinositol 3,4,5-trisphosphate phosphatase SKIP links endoplasmic reticulum stress in skeletal muscle to insulin resistance. *Mol Cell Biol.* 36: 108-18, 2015.
16. Asahara S, Etoh H, Inoue H, Teruyama K, Shibutani Y, Ihara Y, Kawada Y, Bartolome A, Hashimoto N, Matsuda T, Koyanagi-Kimura M, Kanno A, Hirota Y, Hosooka T, Nagashima K, Nishimura W, Inoue H, Matsumoto M, Higgins MJ, Yasuda K, Inagaki N, Seino S, Kasuga M, Kido Y. Paternal

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 18. Takenaka N, Sumi Y, Matsuda K, Fujita J, Hosooka T, Noguchi T, Aiba A, Satoh T. Role for RalA downstream of Rac1 in skeletal muscle insulin signalling. *Biochem J*. 469: 445-54, 2015.
 19. Ijuin T, Hatano N, Hosooka T, Takenawa T. Regulation of insulin signaling in skeletal muscle by PIP3 phosphatase, SKIP, and endoplasmic reticulum molecular chaperone glucose-regulated protein 78. *Biochim Biophys Acta*. 1853: 3192-201, 2015.
 20. Takenaka N, Yasuda N, Nihata Y, Hosooka T, Noguchi T, Aiba A, Satoh T. Role of the guanine nucleotide exchange factor in Akt2-mediated plasma membrane translocation of GLUT4 in insulin-stimulated skeletal muscle. *Cell Signal*. 26: 2460-9, 2014.
 21. Takenaka N, Izawa R, Wu J, Kitagawa K, Nihata Y, Hosooka T, Noguchi T, Ogawa W, Aiba A, Satoh T. A critical role of the small GTPase Rac1 in Akt2-mediated GLUT4 translocation in mouse skeletal muscle. *FEBS J*. 281: 1493-504, 2014.
 22. Asahara S, Shibutani Y, Teruyama K, Inoue HY, Kawada Y, Etoh H, Matsuda T, Kimura-Koyanagi M, Hashimoto N, Sakahara M, Fujimoto W, Takahashi H, Ueda S, Hosooka T, Satoh T, Inoue H, Matsumoto M, Aiba A, Kasuga M, Kido Y. *Diabetologia*. 56:1088-97, 2013.
 23. Hosooka T, Nomura K, Ogawa W. VEGF-B as a therapeutic target to prevent ectopic fat deposition. *J Diabet Invest*. 4:525-527, 2013.