

Prof. Assaf Rudich

Date of Birth: 30.09.1966
Gender: male

Institute Address: Ben-Gurion University of the Negev
Faculty of Health Sciences
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Academic Training:

09/1987–10/1994 Medical School, Ben-Gurion University, Israel

Scientific Certificates:

1999 PhD (“Reactive oxygen species as inducers of insulin resistance”, Supervisor: Prof. Nava Bashan), Ben-Gurion University
1994 Medical Thesis (“A cellular model for studying macrophage function in Gaucher’s disease”, Supervisor: Prof. Rachel Levy)

Professional Career:

since 2004 Tenured researcher, Department of Clinical Biochemistry, BGU
2001–2004 Post-doctoral fellowship, Programme in Cell Biology, Hospital for Sick Children, Toronto, Canada (Mentor: Prof. Amira Klip)
1999–2001 Lecturer, Department of Clinical Biochemistry, BGU
1995–1999 PhD, Ben-Gurion University (Title: Reactive oxygen species as inducers of insulin resistance; Supervisor: Prof. Nava Bashan)
1994–1995 Medical Internship, Soroka Medical Center, Beer-Sheva, Israel, (Prof. Eitan Lunenfeld)

Scientific Activities, Honors, Awards:

2009 Lindner Prize, The Israel Endocrine Society for excellence in endocrine research
2009 Associate Editor, Am J Physiol – Endocrinol. Metab.
2001 The Albert Renold Career Development Award, The European Foundation for the Study of Diabetes
2000 Wolffson Prize, Israel Diabetes Association
1999 Chowers Prize for scientific achievements, Israel Endocrine Society

Key Publications:

- D. Dicker, R. Golan, J. Aron-Wisnewsky, J-D. Zucker, N. Sokolovska, D. S. Comaneshter, R. Yahalom, S. Vinker, K. Clément, **A. Rudich**. Prediction of long-term diabetes remission after RYGB, sleeve gastrectomy and adjustable gastric banding using DiaRem and Advanced-DiaRem scores. *Obes Surg*, Accepted Oct 2018.
- S. Bechor, D. Nachmias, N. Elia, Y. Haim, M. Vatarescu, A. Leikin-Frenkel, M. Gericke, T. Tarnovsky, G. Las, and **A. Rudich**. Adipose tissue conditioned media support macrophage lipid-droplet biogenesis by interfering with autophagic flux. *BBA - Molecular and Cell Biology of Lipids*, 1862: 1001-1012, 2017.
- J. Aron-Wisnewsky, N. Sokolovska, Y. Liu, D. S. Comaneshter, S.Vinker, T. Pecht, C. Poitou, J-M. Oppert, J-L. Bouillot, L. Genser, D. Dicker, J-D. Zucker, **A. Rudich**, K. Clément. The Advanced-DiaRem score Improves Prediction of Diabetes Remission One-year post-Roux-en-Y Gastric Bypass. *Diabetologia*, 60: 1892-1902, 2017.

- M. Vatarescu, S. Bechor, Y. Haim, T. Pecht, T. Tarnovscki, N. Slutsky, O. Nov, H. Shapiro, A. Shemesh, A. Porgador, N. Bashan, **A. Rudich**. Adipose tissue supports normalization of macrophage and liver lipid handling in obesity reversal. *J. Endocrinol.*, 233: 293-305, 2017.
- . Y. Haim, M. Bluher, D. Konrad, N. Goldstein, N. Klöting, I. Harman-Boehm, B. Kirshtein, D. Ginsberg, T. Tarnovscki, Y. Gepner, I. Shai, **A. Rudich**. ASK1 (MAP3K5) is transcriptionally upregulated by E2F1 in adipose tissue in obesity, molecularly defining a human dys-metabolic obese phenotype. *Mol. Metab.*, 6: 725-736, 2017.
- T. Pecht, Y. Haim, N. Bashan, H. Shapiro, I. Harman-Boehm, B. Kirshtein, K. Clément, I. Shai, and **A. Rudich**. Circulating blood monocyte subclasses and lipid-laden adipose tissue macrophages in human obesity. *PLoS One*, 11(7):e0159350, 2016.
- N. Maixner, S. Bechor, Z. Vershinin, T. Pecht, N. Goldstein, Y. Haim, **A. Rudich**. Transcriptional dysregulation of adipose tissue autophagy in obesity. *Physiology*, 31: 270-282, 2016.
- Y. Haim, M. Blüher, N. Slutsky, N. Goldstein, N. Klöting, I. Harman-Boehm, B. Kirshtein, D. Ginsberg, M. Gericke, E. G. Jurado, J. Kovsan, T. Tarnovscki, L. Kachko, N. Bashan, Y. Gepner, I. Shai, and **A. Rudich**. Elevated autophagy gene expression in adipose tissue of obese humans: A potential non-cell-cycle-dependent function of E2F1. Accepted, *Autophagy*, July 2015.
- T. Pecht, A. Gutman, N. Bashan, **A. Rudich**. Peripheral blood leucocyte sub-classes as potential biomarkers of adipose tissue inflammation and obesity sub-phenotypes in humans. *Obes. Rev.* 15: 322-337, 2014.
- H. Shapiro, T. Pecht, R. Shaco-Levy, I. Harman-Boehm, B. Kirshtein, Y. Kuperman, A. Chen, M. Blüher, I. Shai, and **A. Rudich**. Adipose tissue foam cells are present in human obesity. *J. Clin. Endocrinol. Metab.*, 98: 1173-1181, 2013.
- E. Shemesh, **A. Rudich***, I. Harman-Boehm, T. Cukierman-Yaffe. Effect of intranasal insulin on cognitive function – a systematic review. *J. Clin. Endocrinol. Metab.* 97: 366-376, 2012. * corresponding author
- O. Nov, H. Shapiro, H. Ovadia, T. Tarnovscki, I. Dvir, E. Shemesh, J. Kovsan, I. Shelef, Y. Carmi, E. Voronov, R. N. Apte, E. Lewis, Y. Haim, D. Konrad, N. Bashan and **A. Rudich**. Interleukin-1 β regulates fat-liver crosstalk in obesity by auto-paracrine modulation of adipose tissue inflammation and expandability. *PLoSOne*, 8(1): e53626. doi:10.1371/journal.pone.0053626, 2013.
- Tirosh A, Shai I, Afek A, Dubnov-Raz G, Ayalon N, Gordon B, Derazne E, Tzur D, Shamis A, Vinker S, **Rudich A**. Adolescent BMI trajectory and risk of diabetes versus coronary disease. *N Engl J Med.* 2011; 364: 1315-25.
- Kovsan J, Blüher M, Tarnovscki T, Klöting N, Kirshtein B, Madar L, Shai I, Golan R, Harman-Boehm I, Schon MR, Greenberg AS, Elazar Z, Bashan N, **Rudich A**. Altered autophagy in human adipose tissues in obesity. *J Clin Endocrinol Metab.* 2011; 96: E268-77.
- Blüher M, Bashan N, Shai I, Harman-Boehm I, Tarnovscki T, Avinaoch E, Stumvoll M, Dietrich A, Klöting N, **Rudich A**. Activated Ask1-MKK4-p38MAPK/JNK stress signaling pathway in human omental fat tissue may link macrophage infiltration to whole-body insulin sensitivity. *J Clin Endocrinol Metab.* 2009; 94: 2507-15.
- Bashan N, Kovsan J, Kachko I, Ovadia H, **Rudich A**. Positive and negative regulation of insulin signaling by reactive oxygen and nitrogen species. *Physiol Rev.* 2009; 89: 27-71.
- Tirosh A, Shai I, Tekes-Manova D, Israeli E, Pereg D, Shochat T, Kochba I, **Rudich A**. Normal fasting plasma glucose levels and type 2 diabetes in young men. *N Engl J Med.* 2005; 353: 1454-62.