# CV

# John-Olov Jansson, MD, PhD

#### Address:

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# University degrees and positions

- 1. University degrees MD läkarexamen 1981, läkarlegitimation 1993
- 2. Doctoral degree: 1983, Physiology/Endocrinology, University of Göteborg, Title: "Sexual dimorphism of growth hormone" (Supervisor Olle Isaksson)
- 3. Postdoctoral fellow: 1984-86, Division of Endocrinology, University of Cincinnati, 21 months (with Larry Frohman).
- 4. Qualified as Associate Professor: (Docentur) 1984
- 5. Current position: Professor, Institute of Neuroscience and Physiology, Sahlgrenska Academy, Gothenburg (from 1 July 2005)
- 6. Previous Positions (selected):

1986-91 Acting Associate Professor, Dept Physiology, University of Göteborg

1991-93 Internship (Sahlgrenska University Hospital, 20 months).

1993-95 Residency (SahlgrenskaUniversity Hospital, 23 months)

1995-2000 Associate Professor, Swedish Medical Research Council

2000-2001 Visiting Professor, Dept Internal Medicine, University of Cambridge, UK.

2000-2005. Professor. Dept of Internal Medicine, Sahlgrenska Academy, Gothenburg

#### Supervisor for PhD dissertations

Dr Lena Carlsson: "Secretion of growth hormone and its feed-back regulation", Oct, 1989. Dr Staffan Ekberg: "Effects of growth hormone on growth- and transcription-factors in rat liver", June, 1992.

Dr Henrik Steenfos: "Growth factors and formation of granulation tissue", Oct 1992. Dr Johan Svensson: "Effects of growth hormone secretagogues", March 1999 (deputy supervisor with Bengt-Åke Bengtsson).

Dr Stanko Skrtic: "Paracrine regulation of liver growth by insulin-like growth factor-1 (IGF-1) and Hepatic Growth Factor" Jan 1999.

Dr Ville Wallenius: "Hormonal regulation of liver and tumour growth", March 2000. Dr Klara Sjögren: "Effects of growth hormone and liver-derived IGF-I on growth and metabolism", March 2001 (deputy supervisor with Claes Ohlsson). Dr Sabrina Lall: "Short- and long-term actions of growth hormone secretagogues", July 2001 (deputy supervisor with Dr Suzanne Dickson, Cambridge).

Dr Kristina Wallenius "Insulin-like growth factor-I (IGF-I) and interleukin-6 (IL-6) regulate body fat" May 2002 (Price from Swedish Society for Diabethology for best experimental thesis 2002).

Dr Ingrid Wernstedt "Metabolic effects of interleukin-6." December 2005.

Dr Anna Benrick "Cytokines in metabolic functions" March 2008.

Dr Louise Strandberg. "Interactions between nutrition, obesity and the immune system" December 2009.

Dr Erik Schéle. "Body fat regulating neuropeptides: relation to interleukins and gut microbiota." June 2012.

Dr Sara Svahn "Effects of dietrary fatty acids on the immune system" Dec 2016 (deputy supervisor with Dr Maria E Johansson).

Dr Fredrik Anesten "IL-6 and GLP-1 in body fat regulating parts of the CNS of healthy mice." February 2016.

Exam Läkare Jakob Bellman The gravitostat hypothesis for body weight regulation in humans. Ongoing 2020-2025.

Eam Läkare Jovana Zlatkovic. The gravitostat hypothesis for body weight regulation in experimental animals Ongoing. 2021-2025

## **Publications:**

http://www.ncbi.nlm.nih.gov/pubmed/?term=Jansson+JO

169 articles. More than 23 000 citations. H-index 66, i10 index 159 (Google Scholar, May 2021).

13 700 citations, H-index 52 (Web of Science, May 2021).

Invited to present the Gravitostat project orally 7 times during the last years, including 3 plenary lectures:

- Turkish Neuroendocrinology Congress, June 29 to July 1st 2018 at Inonu University, Malatya, Turkey. (Plenary lecture. One out of 5 specially invited western speakers, e g Bob Millar, Kevin O'Byrne, Michelle Adams.)
- The German Society of Endocrinology in Göttingen, Germany March 22nd 2019. (Plenary talk)
- ECE 2019 European Congress of Endocrinology, 18-21 May 2019, Lyon, France.
- R: 40° International Congress SIE Rome May 29- June 1, 2019.
- FASEB meeting about growth hormone and prolactin. ZOOM, 18-19 May 2021.
- Swiss Winter Conference on Ingestive Behavior. St Moritz, February 2022.
- Causes of obesity: theories, conjectures and evidence. Royal Society, London, October 2022.

#### Ten most important articles

- Ohlsson C, Gidestrand E, Bellman J, Larsson C, Palsdottir V, Hägg D, Jansson PA, Jansson JO. 2020. Increased Weight Loading Reduces Body Weight and Body Fat in Obese Subjects – A proof of concept randomized clinical trial. EClinicalMedicine. (Lancet group) doi.org/10,1016/j\_eclinm.2020.100338. Implicates that there is a gravitostat also in humans.
- Ohlsson C, Hägg DA, Hammarhjelm F, Dallmau Gasull A, Bellman J, Windahl S, Palsdottir V, Jansson JO. 2018. Endocrinology The gravitostat regulates fat mass in obese male mice while leptin regulates fat mass in lean male mice. Endocrinology, en.2018-00307, https://doi.org/10.1210/en.2018-00307. (A possible reason that leptin is ineffective in the obese, could be that it is a fasting signal. Instead, the gravitostat is the physiological anti-obesity signal.)
- 3. Ohlsson C, Jansson JO. 2018. Reply to Lund: Where does the gravitostat fit in? Proc Natl Acad Sci U S A. 115:E1335. doi: 10.1073/pnas.1800116115.
- 4. Jansson JO, Palsdottir V, Hägg DA, Schéle E, Dickson SL, Anesten F, Bake T, Montelius M, Bellman J, Johansson ME, Cone RD, Drucker DJ, Wu J, Aleksic B, Törnqvist AE, Sjögren K, Gustafsson JÅ, Windahl SH, Ohlsson C. 2018. Body weight homeostat that regulates fat mass independently of leptin in rats and mice. Proc Natl Acad Sci U S A. 115:427-432. doi:10.1073/pnas.1715687114. PMID: 29279372. (Almost 25 years after leptin, we report another leptin independent homeostatic regulator of body fat; the gravitostat.)
- 5. Jansson JO, Dalmau Gasull A, Schéle E, Dickson SL, Palsdottir V, Palmquist A, Gironés FF, Bellman J, Anesten F, Hägg D, Ohlsson C. 2021. A body weight sensor regulates pre-pubertal growth via the somatotropic axis in male rats. Endocrinology. doi: 10.1210/endocr/bqab053. (We propose a second gravitostat hypothesis for the regulation of prepubertal growth, explaining catch-up growth.)
- Anesten F, Santos C, Gidestrand E, Schéle E, Pálsdóttir V, Swedung-Wettervik T, Meister B, Patrycja Skibicka K, Jansson JO. 2017. Functional interleukin-6 receptorα is located in tanycytes at the base of the third ventricle. J Neuroendocrinol. Vol 29. doi: 10.1111/jne.12546.
- Shirazi R, Palsdottir V, Collander J, Anesten F, Vogel H, Langlet F, Jaschke A, Schuermann A, Prevot V, Shao R, Jansson J-O (corresponding author), Skibicka KP. 2013. GLP-1 receptor stimulation induced suppression of food intake and body weight is mediated by central interleukin-1 and interleukin-6. Proc Natl Acad Sci, U S A, 110:16199-16204 (Proof that some of the most used metabolism drugs in the world act via IL-6 (and IL-1, but not TNFa).
- Garcia M, Wernstedt I, Berndtsson A, Enge M, Bell M, Hultgren O, Horn M, Ahren B, Enerbäck S, Ohlsson C, Wallenius V, Jansson J-O. 2006. Mature onset obesity in interleukin-1 receptor I (IL-1RI) knockout mice. Diabetes, 55:1205-1213. (The first article to show that endogenous IL-1 activation, like IL-6, but unlike TNFa, decreases fat mass in health. 153 citations)
- Wallenius V, Wallenius K, Ahrén B, Rudling M, Dickson SL, Ohlsson C, Jansson J-O. 2002 Interleukin-6 deficient mice develop mature-onset obesity. Nature Medicine 8:75-79. Impact factor 36. (The first article to show that endogenous IL-6, like IL-1 but unlike TNFa, decreases fat mass in health. 1300 citations in Google Scholar.)
- 10. **Jansson J O**, Downs T R, Beamer W G, Frohman L A: 1986. Receptor associated resistance to growth hormone releasing factor in dwarf "little" mice. **Science** 232:511 512. (In this article we show that dwarfism in the "little" mouse is due to a defective

GHRH –receptor. This was confirmed in mice in 1993, and later seen in human dwarfs. 140 citations.)

21 000 citations H-index 62, (Googles Scholar), H-index 52, (Web of Science) June 2020).