

Saverio Cinti

***Curriculum Vitae
and publications***



Saverio Cinti

Biographic notes

- 1949** Born at Ancona 18th December
- 1974** MD –University of Padua
- 1979** Specialist Internal Medicine University of Verona
- 1982** Specialist in Surgical Pathology –University of Milan
- 1984-** Director of Anatomy and Cell Biology Unit of Dpt of Experimental and Clinical Medicine, Faculty of Medicine, University of Ancona
Director of Diagnostic EM United Hospitals of Ancona
- 1986** Professor of Human Anatomy
- 2008-10** President Italian Society of Obesity
- 2013-** President Obesity Center University of Ancona
Director Biology of Obesity Unit United Hospitals of Ancona
- AWARDS** 2008 Blaise Pascal Medal, European Academy of Sciences
www.eurasc.org
- 2013 Friedrich Wassermann Prize European Association for the Study of Obesity (EASO)
www.easo.org/easo-awards

INTERNATIONAL INVITED LECTURES

- 1996- **Dusseldorf** -Plenary lecture- European Commission Concerted Action B5 15th November
- 1997- **Giessen** - Plenary lecture-1st European Leptin Symposium- 1st May
- 1998- **London**- Plenary lecture- The Nutr Soc - Royal College of Physicians- 18th February
- 1998- **Paris**- International Congress of Obesity- 2nd September
- 1999- **Charleston SC**-Plenary Lecture-NAASO North Am Ass study of Obesity- 15th November
- 2000- **Antwerpen**- Plenary Lecture- European Congress of Obesity- 25th may
London-Plenary Lecture- The Nutr Soc- Institute of Child Health- 23rd November
- 2001- **Palma de Mallorca** - Sociedad Española de Nutrición Básica y Aplicada 15 February
Torino - European Society of Endocrinology 9th June
Philadelphia - American Association for the Study of Diabetes 22th June
- 2002 **Antalya**- Turkey- Plenary Lecture. Turkish Society for the study of Obesity- Apr 24th -28th
Sao Paulo- Brasil- 9th International Congress of Obesity – Aug 24th-29th
- 2003 **Lisboa**- II M Stock Conference- IAO March 24th- 27th
Berlin 3rd International Symposium on Obesity and Hypertension 23-25 Oct
- 2004 **Prague**- 13th European Congress on Obesity 26-29 May
Oslo Plenary Lecture-third Throne Holst Symposium on Nutrition- University of Oslo- 4-5 Nov
- 2005 **Barcelona** Seminarios científicos de actualización en diabetes y obesidad 23mayo
- 2006 **Madrid** XVIII Congreso de Diabetes April
Washington DC May 18 - 19, 2006, US ISIS Foundation Metabolism Network
134th Nobel Symposium: Gothenburg, Sweden, on August 6th - 9th 2006.
- 2007 **Birmingham** BES Society for Endocrinology 7-8 March UK
Budapest 15th European Congress on Obesity, Hungary 22nd -25th April
Oslo, NuGO week 2007 17-21 Sept 2007, Norway
Boston Harvard BIDH Endocrine grand rounds 5th October, USA
New York City Columbia University, Dpt of Medicine, 8th October, USA
Bethesda National Institute of Health , Dpt NIDDK/CEB, 11th October, USA
- 2008 **Geneva** 16th European Congress on Obesity, Switzerland 12th-15th April
Pittsburgh University of Pittsburgh Endocrine Research Conference - October 16th, USA
- 2009 **Prague** Inaugural EASO Björntorp Symposium –, Czech Republic from 24 - 27 March 2009.
Edinburgh The Scottish Section of the UK Nutrition Society 7-8 April, 2009
Bethesda Workshop on April 29 on Human Brown Adipose Tissue. USA
Paris 14th World Congress of IFSO (Int Fed for Surg of Obesity), August 26-29, 2009
Tampere Plenary Lecture Finnish Diabetes Research Society September 4-5
Isla de la Toja Plenary Lecture 3rd “New Frontiers in Obes and Nutr” Nov 25-27, Spain.
Dusseldorf Plenary Lecture , COST Symposium December 3-6
- 2010 **Keystone** Keystone Symposia: Adip Tiss Biology Jan 24–29, 2010, Colorado, USA
Nice Inst de res - IFR 50«*tiss repair and plasticity* », Feb 5th, Faculty of Medicine,
Munich NuGO – *Workshop on Obesity*, Schloss Hohenkammer, Feb 2010
- 2011 **Boston**, May, Boston University, Seminar
Minneapolis, May, University of Minnesota, Seminar
Boston, June, Ground Round in Endocrinology- Harvard Medical School
Boston, June, School of Health, Harvard, Seminar

- New York City**, July, Columbia University, Seminar
Atlanta, July, University of Georgia, Seminar
Kuopio, August, COST action, plenary lecture
Friburg, September, FORC (Friburg Obesity Res Conf) , plenary lecture
- 2012 **Paris**, May, EASO satellite meeting, plenary lecture
Copenhagen, August, Benzon Symposium, plenary lecture
- 2013 **Harrogate**, March, BES (British Endo Soc), lecture
Liverpool, May, EASO Wassermann Prize, plenary lecture
Liverpool, May, EASO, lecture
Copenhagen, May August Krog lecture
Odensa, June, Danish Academy of Diabetes, Key lecture
- 2014 **Wroclaw**, May, Europ Congress Endocrinology, lecture

AUTHOR OF A BOOK

AUTHOR OF CHAPTERS IN 13 BOOKS

AUTHOR OF 250 ORIGINAL PUBLICATIONS ON INTERNATIONAL JOURNALS WITH PEER REVIEWERS (see list of publications in PUB MED) (Scopus May 2014)

> 10.500 citations of the published work (Scopus May 2014)

H index = 46 (Scopus May 2014)

BOOKS and CHAPTERS OF BOOKS

"**THE ADIPOSE ORGAN**" Kurtis ed. Milan, 1999 (BOOK)

" **Morphological and Functional Aspects of Brown Adipose Tissue**" in: The Obese Child, Ed. by P.L. Giorgi, R.M. Suskind, C. Catassi. Karger, Basel, 1992

"**Immunohistochemical Localization of Leptin in Adipose Tissues**" in coll. R. DeMatteis, M.C. Zingaretti and J. Himms-Hagen. In: Leptin the voice of Adipose Tissue. Ed. by W.F. Blum, W. Kiess, W Rascher . Verlag, Leiptzig 1997

"**Anatomia Funzionale dell' Organo Adiposo**" in: Obesità, Ed. by O. Bosello, Milan, Kurtis 2008

"**Morphologic Techniques for the study of Brown Adipose Tissue and White Adipose Tissue**" in coll. M.C. Zingaretti, R. Canello, E. Ceresi, P. Ferrara in: Adipose Tissue Protocols Vol 155, Ed by G. Ailhaud, Humana Press, Totowa, 2001

"**Morphology of the Adipose organ**" in: Adipose Tissues, Ed. by S. Klaus, Landes Bioscience, Georgetown, 2001

"**The concept of the Adipose Organ**" in : Obesity and functional foods in Europe, Ed. by A. Palou, M.L. Bonet and F.Serra, European Communities , 2002

"**Adipose Tissue / Structure and functions of Brown Adipose Tissue**"
Encyclopedia of Food Sciences and Nutrition, 2003,Pages 29-34 M J Stock, S Cinti

"**Functional Anatomy of the Adipose Organ**" in: Cachexia and Wasting: A Modern Approach, Ed. by G. Mantovani, Springer-Verlag, 2006

"**The Adipose Organ**" in: Adipose Tissue and Adipokines in Health and Disease, Ed. by G. Fantuzzi and G. Mazzone, Humana Press, 2007

"**The Adipose Organ**" in coll. with R. Vettor. Adipose Tissue and Inflammation, Ed. by A.B. AWARD and P. G. Bradford, CRC Press, 2010

"**Origin of Adipocyte Precursors from Adipose Vascular Endothelium**" in coll with A. Frontini and S. Corvera. Angiogenesis in Adipose Tissue. Ed Y. Cao . Springer 2013

"**Browning of Adipose Organ**" Kushner/Bessesen's Treatment of the Obese Patient, Second Edition. Springer 2014

"**The Adipose Organ: Morphological Perspectives of Adipose Tissues**" in coll A. Smorlesi and A. Frontini in M.A. Shiffman et al. (eds.), *Stem Cells in Aesthetic Procedures*, Springer-Verlag Berlin Heidelberg 2014

Selected Publications

Cohen P, Levy JD, Zhang Y, Frontini A, Kolodin DP, Svensson KJ, Lo JC, Zeng X, Ye L, Khandekar MJ, Wu J, Gunawardana SC, Banks AS, Camporez JP, Jurczak MJ, Kajimura S, Piston DW, Mathis D, Cinti S, Shulman GI, Seale P, Spiegelman BM. Ablation of PRDM16 and beige adipose causes metabolic dysfunction and a subcutaneous to visceral fat switch. **Cell**. 2014 Jan 16;156(1-2):304-16.

Giordano A, Murano I, Mondini E, Perugini J, Smorlesi A, Severi I, Barazzoni R, Scherer PE, Cinti S. Obese adipocytes show ultrastructural features of stressed cells and die of pyroptosis. **J Lipid Res**. 2013 Sep;54(9):2423-36.

Vernochet C, Mourier A, Bezy O, Macotela Y, Boucher J, Rardin MJ, An D, Lee KY, Ilkayeva OR, Zingaretti CM, Emanuelli B, Smyth G, Cinti S, Newgard CB, Gibson BW, Larsson NG, Kahn CR. Adipose-specific deletion of TFAM increases mitochondrial oxidation and protects mice against obesity and insulin resistance. **Cell Metab**. 2012 Dec 5;16(6):765-76.

Poloni A, Maurizi G, Leoni P, Serrani F, Mancini S, Frontini A, Zingaretti MC, Siquini W, Sarzani R, Cinti S. Human dedifferentiated adipocytes show similar properties to bone marrow-derived mesenchymal stem cells. **Stem Cells**. 2012 May;30(5):965-74.

Gupta RK, Mepani RJ, Kleiner S, Lo JC, Khandekar MJ, Cohen P, Frontini A, Bhowmick DC, Ye L, Cinti S, Spiegelman BM. Zfp423 expression identifies committed preadipocytes and localizes to adipose endothelial and perivascular cells. **Cell Metab**. 2012 Feb 8;15(2):230-9.

Tran KV, Gealekman O, Frontini A, Zingaretti MC, Morroni M, Giordano A, Smorlesi A, Perugini J, De Matteis R, Sbarbati A, Corvera S, Cinti S. The vascular endothelium of the adipose tissue gives rise to both white and brown fat cells. **Cell Metab**. 2012 Feb 8;15(2):222-9.

Vitali A, Murano I, Zingaretti MC, Frontini A, Ricquier D, Cinti S. The adipose organ of obesity-prone C57BL/6J mice is composed of mixed white and brown adipocytes. **J Lipid Res**. 2012 Apr;53(4):619-29.

Boström P, Wu J, Jedrychowski MP, Korde A, Ye L, Lo JC, Rasbach KA, Boström EA, Choi JH, Long JZ, Kajimura S, Zingaretti MC, Vind BF, Tu H, Cinti S, Højlund K, Gygi SP, Spiegelman BM. A PGC1- α -dependent myokine that drives brown-fat-like development of white fat and thermogenesis. **Nature**. 2012 Jan 11;481(7382):463-8.

Jimenez-Preitner M, Berney X, Uldry M, Vitali A, Cinti S, Ledford JG, Thorens B. Plac8 is an inducer of C/EBP β required for brown fat differentiation, thermoregulation, and control of body weight. **Cell Metab**. 2011 Nov 2;14(5):658-70.

Haemmerle G, Moustafa T, Woelkart G, Büttner S, Schmidt A, van de Weijer T, Hesselink M, Jaeger D, Kienesberger PC, Zierler K, Schreiber R, Eichmann T, Kolb D, Kotzbeck P, Schweiger M, Kumari M, Eder S, Schoiswohl G, Wongsiriroj N, Pollak NM, Radner FP, Preiss-Landl K, Kolbe T, Rüllicke T, Pieske B, Trauner M, Lass A, Zimmermann R, Hoefler G, Cinti S, Kershaw EE, Schrauwen P, Madeo F, Mayer B, Zechner R. ATGL-mediated fat catabolism regulates cardiac mitochondrial function via PPAR- α and PGC-1.

Nat Med. 2011 Aug 21;17(9):1076-85.

Seale P, Conroe HM, Estall J, Kajimura S, Frontini A, Ishibashi J, Cohen P, Cinti S, Spiegelman BM. Prdm16 determines the thermogenic program of subcutaneous white adipose tissue in mice.

J Clin Invest. 2011 Jan;121(1):96-105.

Barbatelli G, Murano I, Madsen L, Hao Q, Jimenez M, Kristiansen K, Giacobino JP, De Matteis R, Cinti S. The emergence of cold-induced brown adipocytes in mouse white fat depots is determined predominantly by white to brown adipocyte transdifferentiation.

Am J Physiol Endocrinol Metab. 2010 Jun;298(6):E1244-53.

De Matteis R, Zingaretti MC, Murano I, Vitali A, Frontini A, Giannulis I, Barbatelli G, Marcucci F, Bordicchia M, Sarzani R, Raviola E, Cinti S. In vivo physiological transdifferentiation of adult adipose cells.

Stem Cells. 2009 Nov;27(11):2761-8.

Zingaretti MC, Crosta F, Vitali A, Guerrieri M, Frontini A, Cannon B, Nedergaard J, Cinti S. The presence of UCP1 demonstrates that metabolically active adipose tissue in the neck of adult humans truly represents brown adipose tissue.

FASEB J. 2009 Sep;23(9):3113-20.

Murano I, Barbatelli G, Parisani V, Latini C, Muzzonigro G, Castellucci M, Cinti S. Dead adipocytes, detected as crown-like structures, are prevalent in visceral fat depots of genetically obese mice.

J Lipid Res. 2008 Jul;49(7):1562-8.

Vianna CR, Huntgeburth M, Coppari R, Choi CS, Lin J, Krauss S, Barbatelli G, Tzamelis I, Kim YB, Cinti S, Shulman GI, Spiegelman BM, Lowell BB. Hypomorphic mutation of PGC-1 β causes mitochondrial dysfunction and liver insulin resistance.

Cell Metab. 2006 Dec;4(6):453-64.

Almind K, Manieri M, Sivitz WI, Cinti S, Kahn CR. Ectopic brown adipose tissue in muscle provides a mechanism for differences in risk of metabolic syndrome in mice.

Proc Natl Acad Sci U S A. 2007 Feb 13;104(7):2366-71.

Gray SL, Nora ED, Grosse J, Manieri M, Stoeger T, Medina-Gomez G, Burling K, Wattler S, Russ A, Yeo GS, Chatterjee VK, O'Rahilly S, Voshol PJ, Cinti S, Vidal-Puig A. Leptin deficiency unmasks the deleterious effects of impaired peroxisome proliferator-activated receptor gamma function (P465L PPAR γ) in mice.

Diabetes. 2006 Oct;55(10):2669-77.

Cinti S, Mitchell G, Barbatelli G, Murano I, Ceresi E, Faloia E, Wang S, Fortier M, Greenberg AS, Obin MS. Adipocyte death defines macrophage localization and function in adipose tissue of obese mice and humans. **J Lipid Res.** 2005 Nov;46(11):2347-55.

Morrone M, Giordano A, Zingaretti MC, Boiani R, De Matteis R, Kahn BB, Nisoli E, Tonello C, Pisoschi C, Luchetti MM, Marelli M, Cinti S. Reversible transdifferentiation of secretory epithelial cells into adipocytes in the mammary gland. **Proc Natl Acad Sci U S A.** 2004 Nov 30;101(48):16801-6.

Lin J, Wu PH, Tarr PT, Lindenberg KS, St-Pierre J, Zhang CY, Mootha VK, Jäger S, Vianna CR, Reznick RM, Cui L, Manieri M, Donovan MX, Wu Z, Cooper MP, Fan MC, Rohas LM, Zavacki AM, Cinti S, Shulman GI, Lowell BB, Krainc D, Spiegelman BM. Defects in adaptive energy metabolism with CNS-linked hyperactivity in PGC-1alpha null mice. **Cell.** 2004 Oct 1;119(1):121-35.

Plagge A, Gordon E, Dean W, Boiani R, Cinti S, Peters J, Kelsey G. The imprinted signaling protein XL alpha s is required for postnatal adaptation to feeding. **Nat Genet.** 2004 Aug;36(8):818-26.

Bachman ES, Dhillon H, Zhang CY, Cinti S, Bianco AC, Kobilka BK, Lowell BB. betaAR signaling required for diet-induced thermogenesis and obesity resistance. **Science.** 2002 Aug 2;297(5582):843-5.

Cinti S, de Matteis R, Ceresi E, Picó C, Oliver J, Oliver P, Palou A, Obrador A, Maffei C. Leptin in the human stomach. **Gut.** 2001 Jul;49(1):155.

Himms-Hagen J, Melnyk A, Zingaretti MC, Ceresi E, Barbatelli G, Cinti S. Multilocular fat cells in WAT of CL-316243-treated rats derive directly from white adipocytes. **Am J Physiol Cell Physiol.** 2000 Sep;279(3):C670-81.

Wu Z, Puigserver P, Andersson U, Zhang C, Adelmant G, Mootha V, Troy A, Cinti S, Lowell B, Scarpulla RC, Spiegelman BM. Mechanisms controlling mitochondrial biogenesis and respiration through the thermogenic coactivator PGC-1. **Cell.** 1999 Jul 9;98(1):115-24.

Cancello R, Zingaretti MC, Sarzani R, Ricquier D, Cinti S. Leptin and UCP1 genes are reciprocally regulated in brown adipose tissue. **Endocrinology.** 1998 Nov;139(11):4747-50. PubMed PMID: 9794489.

Giordano A, Morrone M, Carle F, Gesuita R, Marchesi GF, Cinti S. Sensory nerves affect the recruitment and differentiation of rat periovarian brown adipocytes during cold acclimation. **J Cell Sci.** 1998 Sep;111 (Pt 17):2587-94.

Cinti S, Eberbach S, Castellucci M, Accili D. Lack of insulin receptors affects the formation of white adipose tissue in mice. A morphometric and ultrastructural analysis.

Diabetologia. 1998 Feb;41(2):171-7.

Cauci M, Barbatelli G, Cinti S. The retractile testis can be a cause of adult infertility.

Fertil Steril. 1997 Dec;68(6):1051-8. PubMed PMID: 9418696.

Cinti S, Frederich RC, Zingaretti MC, De Matteis R, Flier JS, Lowell BB. Immunohistochemical localization of leptin and uncoupling protein in white and brown adipose tissue.

Endocrinology. 1997 Feb;138(2):797-804.

Invited reviews

Giordano A, Smorlesi A, Frontini A, Barbatelli G, Cinti S. MECHANISMS IN ENDOCRINOLOGY: White, brown and pink adipocytes: the extraordinary plasticity of the adipose organ.

Eur J Endocrinol. 2014 Apr 10;170(5):R159-71.

Smorlesi A, Frontini A, Giordano A, Cinti S. The adipose organ: white-brown adipocyte plasticity and metabolic inflammation.

Obes Rev. 2012 Dec;13 Suppl 2:83-96.

Cinti S. The adipose organ at a glance.

Dis Model Mech. 2012 Sep;5(5):588-94.

Cinti S. Between brown and white: novel aspects of adipocyte differentiation.

Ann Med. 2011 Mar;43(2):104-15.

Frontini A, Cinti S. Distribution and development of brown adipocytes in the murine and human adipose organ.

Cell Metab. 2010 Apr 7;11(4):253-6.

Cinti S. Reversible physiological transdifferentiation in the adipose organ.

Proc Nutr Soc. 2009 Nov;68(4):340-9.

Cinti S. Transdifferentiation properties of adipocytes in the adipose organ.

Am J Physiol Endocrinol Metab. 2009 Nov;297(5):E977-86.

Cinti S. Reversible transdifferentiation in the adipose organ.

Int J Pediatr Obes. 2008 Oct 1;3 Suppl 2:21-6.

Cinti S. The role of brown adipose tissue in human obesity.

Nutr Metab Cardiovasc Dis. 2006 Dec;16(8):569-74.

Cinti S. The adipose organ.

Prostaglandins Leukot Essent Fatty Acids. 2005 Jul;73(1):9-15.

Cinti S. Adipocyte differentiation and transdifferentiation: plasticity of the adipose organ.
J Endocrinol Invest. 2002 Nov;25(10):823-35.

Cinti S. The adipose organ: endocrine aspects and insights from transgenic models.
Eat Weight Disord. 2001 Sep;6(3 Suppl):4-8.

Cinti S. The adipose organ: morphological perspectives of adipose tissues.
Proc Nutr Soc. 2001 Aug;60(3):319-28.

Cinti S. Anatomy of the adipose organ.
Eat Weight Disord. 2000 Sep;5(3):132-42.

Cinti S. Adipose tissues and obesity.
Ital J Anat Embryol. 1999 Apr-Jun;104(2):37-51.

Cinti S. Ultrastructural pathology of solid tumours.
Biomed Pharmacother. 1985;39(3):115-22.

Reviewer for:

Science
Nature Medicine
Cell Metabolism

Editorial Representative

of the Journal: "Obesity Facts" <http://content.karger.com> (from foundation until 2011)

Patents

Italian Patent n 1232898 "Leptin as nutritional supplement"

Italian Patent Deposit MI2008A001464 Use of isolated mature adipocytes in regenerative medicine for tissue renewal and repair