

Il Prof Cesare Carani è nato a Cavezzo (MO) il 19/10/1943.

Laureato in Medicina e Chirurgia presso l' Università di Modena il 28/2/1969 con voti 110/110 e lode.

Abilitato all' esercizio professionale presso l'Università di Modena nell' aprile 1969.

Medico Interno presso la Clinica Medica dell' Università di Modena dall' 1/3/1969 al 30/4/1970.

Assegnatario di Borsa di Studio del Ministero della Pubblica Istruzione dall' 1/5/1970 al 31/5/1973.

Assistente Ospedaliero Interno a tempo pieno presso l'Istituto di Semeiotica Medica dell' Università di Modena dall' 1/6/1973 al 30/4/1974.

Assistente Universitario Ordinario a tempo pieno presso la Cattedra di Semeiotica Medica/cattedra di endocrinologia dell' Università di Modena dall' 1/5/1974 al 1/4/1980

Professore Associato di Endocrinologia presso la Facoltà di Medicina dell'Università di Modena dal 09/12/1982 al 28/01/2000.

**Direttore dell'Unità Operativa di Endocrinologia e Malattie del Metabolismo** presso il Policlinico di Modena dal 1997 al 2005 e presso l'Ospedale di Baggiovara dal 2005 a tutt'oggi

**Professore Ordinario** di Endocrinologia dal 29/01/2000 ad oggi.

**Direttore della Scuola di Specializzazione in Endocrinologia e malattie del ricambio** dal 2005 a tutt'oggi.

**Direttore del Dipartimento di Medicina, Endocrinologia, Metabolismo e Geriatria** dal 2010 a tutt'oggi

Il Prof. Carani ha portato originali contributi in vari campi della Endocrinologia generale, del Metabolismo ed in particolare dell' Andrologia e fisiopatologia degli estrogeni nell'uomo. La sua attività si è concretata in circa 110 pubblicazioni indicizzate.

#### ATTIVITA' SCIENTIFICA

L'attività scientifica si è rivolta al campo endocrino andrologico con particolare rilevanza nella fisiopatologia degli estrogeni nell'uomo. In questo contesto il Prof Carani ha per primo dimostrato (NewJMed) il ruolo chiave degli estrogeni nell'uomo. Tale riscontro ha aperto un nuovo campo di ricerca e fornito le basi per la comprensione di nuovi fenotipi clinici maschili e femminili

E socio e membro di comitati di numerose società scientifiche italiane e straniere:

Società Italiana di Endocrinologia

Società Italiana di Andrologia Medica

European Academy of Andrology

European Society of Endocrinology

#### COLLABORAZIONI NAZIONALI ED INTERNAZIONALI

1) Evan Simpson, Jean Hailes Foundation (S.D.) Clayton, Australia

2) Kennet S. Korach, Laboratory of Reproductive and Development Toxicology, National Institute of Environmental Health Sciences, Research Triangle Park

3) S. Schlatt , Institut fur Reproduktionsmedizin und Andrologie der Universitaet, D-48149 Muenster

## PRINCIPALI PUBBLICAZIONI DEGLI ULTIMI 13 ANNI

1. Rochira V, Zirilli L, Maffei L, Premrou V, Aranda C, Baldi M, Ghigo E, Aimaretti G, Carani C, Lanfranco F. Tall stature without growth hormone: four male patients with aromatase deficiency. *J Clin Endocrinol Metab.* 2010 Apr;95(4):1626-33. Epub 2010 Feb 17.
2. Zirilli L, Maffei L, Meunier PJ, Chavassieux P, Carani C, Rochira V. The effects of long-term raloxifene and estradiol treatments on bone in a patient with congenital aromatase deficiency. *Bone.* 2009 Nov;45(5):827-32. Epub 2009 Apr 5.
3. Rochira V, Carani C. Aromatase deficiency in men: a clinical perspective. *Nat Rev Endocrinol.* 2009 Oct;5(10):559-68. Epub 2009 Aug 25. Review.
4. Jannini EA, Isidori AM, Gravina GL, Aversa A, Balercia G, Bocchio M, Boscaro M, Carani C, Corona G, Fabbri A, Foresta C, Forti G, Francavilla S, Granata AR, Maggi M, Mansani R, Palego P, Spera G, Vetri M, Lenzi A; Endotrial Study Group. The ENDOTRIAL study: a spontaneous, open-label, randomized, multicenter, crossover study on the efficacy of sildenafil, tadalafil, and vardenafil in the treatment of erectile dysfunction. *J Sex Med.* 2009 Sep;6(9):2547-60. Epub 2009 Jun 29.
5. Zirilli L, Benatti P, Romano S, Roncucci L, Rossi G, Diazzi C, Carani C, Ponz De Leon M, Rochira V. Differentiated thyroid carcinoma (DTC) in a young woman with Peutz-Jeghers syndrome: are these two conditions associated? *Exp Clin Endocrinol Diabetes.* 2009 May;117(5):234-9. Epub 2009 Feb 20.
6. Rochira V, Zirilli L, Madeo B, Maffei L, Carani C. Testosterone action on erythropoiesis does not require its aromatization to estrogen: Insights from the testosterone and estrogen treatment of two aromatase-deficient men. *J Steroid Biochem Mol Biol.* 2009 Feb;113(3-5):189-94. Epub 2008 Dec 30.
7. Zirilli L, Orlando G, Diazzi C, Squillace N, Carani C, Guaraldi G, Rochira V. Hypopituitarism and HIV-infection: a new comorbidity in the HAART era? *J Endocrinol Invest.* 2008 Sep;31(9 Suppl):33-8. Review.
8. Balestrieri A, Zirilli L, Madeo B, Pignatti P, Rossi G, Carani C, Rochira V. 21-Hydroxylase Deficiency and Klinefelter Syndrome in an Adult Man: Striking Balancing out of Androgen Excess and Insufficiency. *J Androl.* 2008 Sep 4. [Epub ahead of print]
9. Lanfranco F, Zirilli L, Baldi M, Pignatti E, Corneli G, Ghigo E, Aimaretti G, Carani C, Rochira V. A novel mutation in the human aromatase gene: insights on the relationship among serum estradiol, longitudinal growth and bone mineral density in an adult man under estrogen replacement treatment. *Bone.* 2008 Sep;43(3):628-35. Epub 2008 May 23.
10. Iughetti L, Sobrier ML, Predieri B, Netchine I, Carani C, Bernasconi S, Balli F, Amselem S. Complex disease phenotype revealed by GH deficiency associated with a novel and unusual defect in the GH-1 gene. *Clin Endocrinol (Oxf).* 2008 Jul;69(1):170-2. Epub 2008 Jul 1.

11. Madeo B, Bettica P, Milleri S, Balestrieri A, Granata AR, Carani C, Rochira V. The Effects of Citalopram and Fluoxetine on Sexual Behavior in Healthy Men: Evidence of Delayed Ejaculation and Unaffected Sexual Desire. A Randomized, Placebo-Controlled, Double-Blind, Double-Dummy, Parallel Group Study. *J Sex Med.* 2008 Apr 11. [Epub ahead of print]
12. Zirilli L, Rochira V, Diazzi C, Caffagni G, Carani C. Human models of aromatase deficiency. *J Steroid Biochem Mol Biol.* 2008 Apr;109(3-5):212-8. Epub 2008 Mar 20.
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14. Rochira V, Madeo B, Zirilli L, Caffagni G, Maffei L, Carani C. Oestradiol replacement treatment and glucose homeostasis in two men with congenital aromatase deficiency: evidence for a role of oestradiol and sex steroids imbalance on insulin sensitivity in men. *Diabet Med.* 2007 Dec;24(12):1491-5. Epub 2007 Nov 1.
15. Carpino A, Rago V, Pezzi V, Carani C, Andò S. Detection of aromatase and estrogen receptors (ERalpha, ERbeta1, ERbeta2) in human Leydig cell tumor. *Eur J Endocrinol.* 2007 Aug;157(2):239-44.
16. Maffei L, Rochira V, Zirilli L, Antunez P, Aranda C, Fabre B, Simone ML, Pignatti E, Simpson ER, Houssami S, Clyne CD, Carani C. A novel compound heterozygous mutation of the aromatase gene in an adult man: reinforced evidence on the relationship between congenital oestrogen deficiency, adiposity and the metabolic syndrome. *Clin Endocrinol (Oxf).* 2007 Jun 4; [Epub ahead of print]
17. Jones ME, Boon WC, McInnes K, Maffei L, Carani C, Simpson ER. Recognizing rare disorders: aromatase deficiency. *Nat Clin Pract Endocrinol Metab.* 2007 May;3(5):414-21.
18. Rochira V, Zirilli L, Madeo B, Aranda C, Caffagni G, Fabre B, Montangero VE, Roldan EJ, Maffei L, Carani C. Skeletal effects of long-term estrogen and testosterone replacement treatment in a man with congenital aromatase deficiency: Evidences of a priming effect of estrogen for sex steroids action on bone. *Bone.* 2007 Jun;40(6):1662-8. Epub 2007 Feb 27.
19. Rochira V, Zirilli L, Genazzani AD, Balestrieri A, Aranda C, Fabre B, Antunez P, Diazzi C, Carani C, Maffei L. Hypothalamic-pituitary-gonadal axis in two men with aromatase deficiency: evidence that circulating estrogens are required at the hypothalamic level for the integrity of gonadotropin negative feedback. *Eur J Endocrinol.* 2006 Oct;155(4):513-22.
20. Rochira V, Balestrieri A, Madeo B, Zirilli L, Granata AR, Carani C. Bone loss, sex steroids and male age related hypogonadism. *J Endocrinol Invest.* 2005;28(11 Suppl Proceedings):46-8. Review.
21. Vottero A, Rochira V, Capelletti M, Viani I, Zirilli L, Neri TM, Carani C, Bernasconi S, Ghizzoni L. Aromatase is differentially expressed in peripheral blood leukocytes from children, and adult female and male subjects. *Eur J Endocrinol.* 2006 Mar;154(3):425-31.

22. Rochira V, Balestrieri A, Madeo B, Zirilli L, Granata AR, Carani C. Osteoporosis and male age-related hypogonadism: role of sex steroids on bone (patho)physiology. *Eur J Endocrinol*. 2006 Feb;154(2):175-85. Review.
23. Simpson E, Jones M, Misso M, Hewitt K, Hill R, Maffei L, Carani C, Boon WC. Estrogen, a fundamental player in energy homeostasis. *J Steroid Biochem Mol Biol*. 2005 May;95(1-5):3-8. Review. No abstract available.
24. Rochira V, Granata AR, Madeo B, Zirilli L, Rossi G, Carani C. Estrogens in males: what have we learned in the last 10 years? *Asian J Androl*. 2005 Mar;7(1):3-20. Review.
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26. Faustini-Fustini M, Balestrieri A, Rochira V, Carani C. The apparent paradox of tall stature with hypopituitarism: new insights from an old story. *J Clin Endocrinol Metab*. 2003 Aug;88(8):4002-3; author reply 4003. No abstract available.
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30. Rochira V, Balestrieri A, Faustini-Fustini M, Carani C. Role of estrogen on bone in the human male: insights from the natural models of congenital estrogen deficiency. *Mol Cell Endocrinol*. 2001 Jun 10;178(1-2):215-20. Review.
31. Rochira V, Balestrieri A, Madeo B, Baraldi E, Faustini-Fustini M, Granata AR, Carani C. Congenital estrogen deficiency: in search of the estrogen role in human male reproduction. *Mol Cell Endocrinol*. 2001 Jun 10;178(1-2):107-15. Review.
32. Balestrieri A, Faustini-Fustini M, Rochira V, Carani C. Clinical implications and management of oestrogen deficiency in the male. *Clin Endocrinol (Oxf)*. 2001 Apr;54(4):431-2. Review. No abstract available.
33. Ando S, Carani C, Lombardi G. Insights into the role of estrogen in the male genital tract: a report on an estrogen and male reproduction workshop, Isola Capo Rizzuto, Italy, 23-24 September 1999. *Trends Endocrinol Metab*. 2000 Aug;11(6):248-50.

34. Rochira V, Faustini-Fustini M, Balestrieri A, Carani C. Estrogen replacement therapy in a man with congenital aromatase deficiency: effects of different doses of transdermal estradiol on bone mineral density and hormonal parameters. *J Clin Endocrinol Metab.* 2000 May;85(5):1841-5.
35. Carani C, Rochira V, Faustini-Fustini M, Balestrieri A, Granata AR. Role of oestrogen in male sexual behaviour: insights from the natural model of aromatase deficiency. *Clin Endocrinol (Oxf).* 1999 Oct;51(4):517-24.
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37. Carani C, Qin K, Simoni M, Faustini-Fustini M, Serpente S, Boyd J, Korach KS, Simpson ER. Effect of testosterone and estradiol in a man with aromatase deficiency. *N Engl J Med.* 1997 Jul 10;337(2):91-5.