

## CURRICULUM VITAE

Name: **GIUSEPPE CASO**

Academic Qualifications: **-Ph.D., 'Nutrition & Metabolism' (1997)**  
**-M.Sc., 'Human Nutrition & Metabolism' (1991)**  
**-Specialization Diploma in 'Endocrinology and Metabolic Diseases' (1995)**  
**-M.D. (1990)**

Board Certifications: **Medical licensure: Italy (1990), Score 90/90**  
**Board Certification in Endocrinology and Metabolism: Italy (1995)**

Current address: **20 Rockaway Drive, Sound Beach, New York 11789, USA.**

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### EDUCATION:

- 1976-1982** High school: **Classical studies.**  
Liceo Classico 'P. Virgilio Marone', Capri (Italy).  
Final grade: 60/60.
- 1990** **Degree in Medicine.**  
II Medical School, University of Naples (Italy).  
Title of thesis: 'Bioelectrical impedance and the measurement of body composition'.  
Final grade: 110 cum laude/110.
- 1991** **Master of Science (MSc) degree in 'Human Nutrition and Metabolism'.** University of Aberdeen (UK).  
A taught course covering all aspects of human nutrition and metabolism incorporating a research project entitled 'Metabolic response of blood lymphocytes to nutrients: effects of glutamine supplementation'. The project involved the in vivo measurement of blood lymphocyte protein synthesis in human volunteers using amino acids labeled with stable isotopes, learning of blood cell isolation and culture techniques.
- 1992** **Two weeks intensive course on 'Clinical Nutrition'** (ERASMUS project, E.C.).  
Universities of Maastricht (The Netherlands) and Leuven (Belgium).
- 1995** **Specialization diploma in 'Endocrinology and Metabolic Diseases'.**  
II Medical School, University of Naples (Italy).  
Title of the thesis: 'Effect of protein quality in the diet on liver albumin synthesis'.
- 1997** **Doctor of Philosophy degree (PhD) in 'Nutrition and Metabolism'.** University of Aberdeen (UK). Title of the thesis: 'Metabolic effects of arginine on malignant and non malignant tissues'.

This project involved several studies in volunteers, surgical patients, laboratory animals and cells in culture. It included measurements of protein synthesis in a wide range of normal and malignant tissues and cells, both in vivo and in vitro, of plasma protein synthesis and nitrogen balance. The project provided expertise in the techniques to investigate protein and nitrogen metabolism in the whole body and specific tissues and cells, use of amino acids labeled with stable and radioactive isotopes, mass spectrometry, cell culture techniques.

## **RESEARCH AND PROFESSIONAL EXPERIENCE:**

- 1988-1990 Medical/Research Fellow.** Department of Internal Medicine, Group of Clinical Nutrition, II Medical School, University of Naples (Italy). Investigating the body composition and energy metabolism in different physiological and pathological conditions (e.g. leanness, obesity, anorexia).
- 1991-1994 Graduate Student.** Rowett Research Institute (Aberdeen, UK) and Department of Surgery, Medical School, University of Aberdeen (UK).
- 1994-1997 Research Fellow.** Department of Surgery, SUNY at Stony Brook (New York, USA).
- 1997-2000 Postdoctoral Research Fellow.** Department of Surgery, SUNY at Stony Brook (New York, USA).  
Involved in several research projects including studies investigating: the response of muscle, immune cell and plasma protein metabolism to surgical stress; effects of dietary supplementation with single amino acids on tumour protein synthesis and growth in surgical cancer patients; effects of anabolic hormones (i.e. GH) on immune cells, muscle protein metabolism and wasting in HIV infected patients; effects of insulin and amino acids administration on muscle protein metabolism; measurement of tissue protein synthesis using different isotopic techniques and different stable isotope labeled amino acids; effect of diet composition on plasma protein synthesis in volunteers; effect of acid-base balance on protein metabolism.
- 1997- Lecturer** of the 'Nutrition' course for medical students at the Medical School of the New York State University (SUNY) at Stony Brook.
- 2000-2005 Research Scientist.** Department of Surgery, SUNY at Stony Brook (New York, USA).
- 2005- Research Assistant Professor.** Department of Surgery, SUNY at Stony Brook (New York, USA).

## **PROFESSIONAL MEMBERSHIPS:**

**European Society for Parenteral and Enteral Nutrition (ESPEN).**  
**Federation of American Societies of Experimental Biology (FASEB)**  
**Italian Society for Parenteral and Enteral Nutrition.**  
**Nutrition Society (UK).**

## AWARDS AND FELLOWSHIPS:

- 1991 & 1992 Research fellowship award sponsored by the Italian National Research Council (C.N.R.) - (F.A.T.M.A. project)
- 1993 ESPEN-Ajinomoto research fellowship award sponsored by the European Society for Parenteral and Enteral Nutrition (ESPEN) and Ajinomoto Inc.
- 2008-2010 New York Empire Clinical Research Investigator Program (ECRIP) Fellowship award

## CURRENT GRANTS:

- 2009- **'Benefit of Coenzyme Q10 in patients on statins'** (National Institutes of Health, National Center for Complimentary and Alternative Medicine - NCCAM)

The project investigates the potential beneficial effects of Coenzyme Q10 in ameliorating myopathic symptoms associated with statin therapy and its mechanisms of actions.

Role: Principal Investigator

- 2011- **'Mesenchymal Stem Cells for Human Cancer Treatment'** (Stony Brook University, Department of Surgery, Seed Grant Award)

Role: Principal Investigator

- 2012- **'Mesenchymal Stem Cells for siRNA Based Cancer Treatment'** (Stony Brook Foundation TRO Catacosinos Cancer Translational Researcher Award)

Role: Principal Investigator

## PUBLICATIONS:

1. Philip F, Sahu S, **Caso G**, Scarlata S. Role of phospholipase C- $\beta$  in RNA interference. Adv Biol Regul. **2013**; July 18 [Epub ahead of print]
2. **Caso G**, McNurlan MA, Mileva I, Mynarcik DC, Zemlalyak A, Gelato MC. Peripheral fat loss and decline in adipogenesis in older humans. Metabolism **2013;62(3):337-40**.

3. **Caso G**, Mileva I, McNurlan MA, Mynarcik DC, Darras F, Gelato MC. Effect of ritonavir and atazanavir on human subcutaneous preadipocyte proliferation and differentiation. *Antivir Res.* **2010**; **87**: 137-143.
4. **Caso G**, McNurlan MA. Effect of insulin on whole body protein metabolism in children with type 1 diabetes. *Curr Opin Clin Nutr Metab Care* **2010**; 13(1):93-6.
5. **Caso G**, Mileva I, Kelly P, Ahn H, Gelato MC, McNurlan MA. Feeding acutely stimulates fibrinogen synthesis in healthy young and elderly adults. *J Nutr.* **2009**;139(11):2032-6.
6. Ruggieri F, **Caso G**, Wegmann M, McNurlan MA, Wahl C, Imoberdorf R, Garlick PJ, Ballmer PE. Does increasing blood pH stimulate protein synthesis in dialysis patients? *Nephron Clin Pract.* **2009**;112(4):c276-83.
7. **Caso G**, Barry C, Patejunas G. Dysregulation of CXCL9 and reduced tumor growth in Egr-1 deficient mice. *J Hematol Oncol.* **2009** Feb 7;2(1):7.
8. **Caso G**, Vosswinkel JA, Garlick PJ, Barry KM, Bilfinger TV, McNurlan MA. Altered protein metabolism following coronary artery bypass graft (CABG) surgery. *Clin Sci (Lond)* **2008**; 114:339-346.
9. **Caso G**, Kelly P, McNurlan MA, Lawson WE. Effect of coenzyme Q10 on myopathic symptoms in patients treated with statins. *Am J Cardiol* **2007**;99:1409-1412.
10. **Caso G**, Feiner J, Mileva I, Bryan LJ, Kelly P, Autio K, Gelato MC, McNurlan MA. Response of albumin synthesis to oral nutrients in young and elderly subjects. *Am J Clin Nutr.* **2007**; 85:446-451.
11. **Caso G**, Garlick PJ, Ballou LM, Vosswinkel JA, Gelato MC, McNurlan MA. The increase in human muscle protein synthesis induced by food intake is similar when assessed with the constant infusion and flooding techniques. *J Nutr.* **2006**; 136:1504-1510.
12. **Caso G** and Garlick PJ. Control of muscle protein kinetics by acid-base balance. *Curr Opin Clin Nutr Metabol Care* **2005**; 8: 73-76.
13. **Caso G**, Garlick BA, Casella GA, Sasvary D and Garlick PJ. Response of protein synthesis to hypercapnia in rats: independent effects of acidosis and hypothermia. *Metabolism* **2005**; 54:841-847.
14. **Caso G**, McNurlan MA, McMillan ND, Eremin O and Garlick PJ. Tumour cell growth in culture: dependence on arginine. *Clin Sci (Lond)* **2004**; 107: 371-379.
15. **Caso G**, Garlick BA, Casella GA, Sasvary D and Garlick PJ. Acute metabolic acidosis inhibits muscle protein synthesis in rats. *Am J Physiol Endocrinol Metab* **2004**; 287: E90-E96.
16. Garlick PJ, **Caso G**, Mynarcik D, McNurlan MA, and Gelato ME. Nutritional regulation of protein metabolism. *J Anim Sci* **2002**; 80(Suppl. 2):E135-E142.
17. **Caso G**, Ford GC, Nair KS, Garlick PJ, McNurlan MA. Enrichment of aminoacyl-tRNA after a flood of labeled phenylalanine: insulin effect on muscle protein synthesis. *Am J Physiol Endocrinol Metab* **2002**; 282:E1029-38.
18. **Caso G**, Garlick P, Gelato M, McNurlan MA. Lymphocyte protein synthesis is increased with progression of HIV-associated disease to AIDS. *Clin Sci (Lond)* **2001**; 101:583-89.
19. Scalfi L, Marra M, De Filippo E, **Caso G**, Pasanisi F, Contaldo F. The prediction of basal metabolic rate in female patients with anorexia nervosa. *Int J Obes Relat Metab Disord* **2001**; 25:359-64.
20. **Caso G**, Ford GC, Nair KS, Vosswinkel JA, Garlick PJ, McNurlan MA. Increased concentration of tracee affects estimates of muscle protein synthesis. *Am J Physiol Endocrinol Metab* **2001**; 280:E937-46.
21. **Caso G**, Scalfi L, Marra M, et al. Albumin synthesis is diminished in men consuming a predominantly vegetarian diet. *J Nutr* **2000**; 130:528-33.
22. **Caso G**. Metabolic effects of arginine on malignant and non malignant tissues. Aberdeen (UK): University of Aberdeen (PhD thesis): **1997**.
23. Garlick PJ, McNurlan MA, **Caso G**. Critical assessment of methods used to measure protein synthesis in human subjects. *Yale J Biol Med* **1997**;70:65-76.

24. Garlick PJ, McNurlan MA, **Caso G**. Protein turnover in cancer patients. In: Muramatsu T, ed. Gene expression and nutrition: From cells to whole body. Trivandrum (India): Research Signpost Co., **1996**:85-102.
25. **Caso G**, Matar S, McNurlan MA, McMillan DN, Eremin O, Garlick PJ. Metabolic effects of arginine on malignant tissues. *Clin Nutr* **1996**;15:89-90.
26. Essén P, McNurlan MA, Thorell A, et al. Determination of protein synthesis in lymphocytes in vivo after surgery. *Clin Sci (Lond)* **1996**;91:99-106.
27. Garlick PJ, McNurlan MA, **Caso G**. Protein synthesis in the tumor and host tissues. *Rivista Italiana di Nutrizione Parenterale ed Enterale* 1995;13:95-99.
28. Esposito-Del Puente A, Scalfi L, De Filippo E, et al. Familial and environmental influences on body composition and body fat distribution in childhood in southern Italy. *Int J Obes Relat Metab Disord* **1994**; 18:596-601.
29. **Caso G**. Metabolic response of blood lymphocytes to nutrients: effects of glutamine supplementation. University of Aberdeen: (MSc thesis), **1991**.
30. Scalfi L, Coltorti A, Sapio C, **Caso G**, Contaldo F. Basal metabolism and postprandial thermogenesis in anorexia nervosa and constitutional leanness. *Minerva Endocrinol* **1991**; 16:43-6.
31. Scalfi L, Sapio C, Coltorti A, **Caso G**, De Filippo E, Contaldo F. Metabolismo basale e composizione corporea nell'anorexia nervosa prima e dopo intervento nutrizionale. In: Del Toma E, Fusco MA, eds. *Attualita', controversie e nuove tendenze in dietoterapia*. Bologna: Monduzzi, **1990**:135-138.

#### Abstracts:

1. **Caso G**, McNurlan MA, Mileva I, Stein S, Gelato MC. Decline in adipogenesis contributes to peripheral subcutaneous fat loss in older humans. *FASEB J* **2012**;26:965.4
2. **Caso G**, Maturi J, Mileva I, Kelly P, Ahn H, Gelato MC, McNurlan MA. Acute effect of oral nutrients on fibrinogen synthesis in healthy young and elderly subjects. *FASEB J* **2008**;22:869.10
3. **Caso G**, Ballou LM, Bunpo P, Anthony TG, Garlick PJ. Effect of acute respiratory acidosis on translation signaling in skeletal muscle. *FASEB J* **2008**;22:869.8
4. **Caso G**, Rosengart T.K., Patejunas G. Reduced tumor growth in mice lacking Egr-1. *FASEB J*. **2008**; 22:1b603
5. **Caso G**, Garlick BA, Sasvary D, Garlick PJ. Nutrients attenuate depressive effect of metabolic acidosis on muscle protein synthesis in rats. *FASEB J* **2006**;20:A1044 (abs.).
6. **Caso G**, Vosswinkel JA, Garlick PJ, Mileva I, Gelato MC, McNurlan MA. Response of human muscle protein to feeding: a comparison of methods. *FASEB J* **2006**;20:A8 .
7. **Caso G**, Garlick BA, Casella GA, Sasvary D and Garlick PJ. Delayed inhibition of muscle protein synthesis by metabolic acidosis. *FASEB J* **2003**; 17: A739.
8. Ballmer PE, Ruggieri F, McNurlan MA, Wegmann M, **Caso G**, Imoberdorf R, Wahl C, and Garlick PJ. Does increasing pH with bicarbonate stimulate albumin synthesis in patients undergoing chronic hemodialysis? *Clin Nutr* **2002**; 21: 29.
9. **Caso G**, Garlick BA, Casella GA, Sasvary D, and Garlick PJ. Muscle protein synthesis during respiratory acidosis: independent effects of decreases in pH and temperature. *FASEB J* **2002**;16: A613-A614.
10. **Caso G**, Ford GC, Nair KS, Garlick PJ, McNurlan MA. Infusion of amino acids alters tracer kinetics more than protein synthesis. *FASEB J* **2000**;14:A744.
11. **Caso G**, Garlick P, Hong Y, Ferretti J, Cersosimo E. Arginine production by the kidney in healthy men. *FASEB J* **2000**;14:A747.
12. **Caso G**, Ford GC, Nair KS, Garlick PJ, McNurlan MA. Insulin with euaminocidemia stimulates muscle protein synthesis in dogs. *FASEB J* **2000**;14:A768.
13. **Caso G**, Tyndall B, Sasvary D, Casella G, Garlick P. Muscle protein synthesis is depressed by acute respiratory acidosis. *FASEB J* **2000**;14:A768.

14. **Caso G**, Tyndall B, Sasvary D, Casella G, Kang P, Garlick P. Inhibition of muscle protein synthesis in rats by acute metabolic acidosis. *FASEB J* **1999**;13:A909.
15. **Caso G**, Scalfi L, Covino A, McNurlan M, Garlick P, Contaldo F. Reduced albumin synthesis in healthy volunteers after dietary protein from predominantly vegetarian sources. *FASEB J* **1999**; 13:A1024.
16. **Caso G**, Scalfi L, Marra M, et al. A Mediterranean type diet richer in protein from vegetable sources reduces albumin but not fibrinogen synthesis in healthy volunteers. *Diabetes, Nutrition & Metabolism* **1999**; 12:168-169.
17. **Caso G**, Ford GC, Nair KS, Garlick PJ, McNurlan MA. Increased concentration of tracer affects estimates of muscle protein synthesis. *Diabetes, Nutrition & Metabolism* **1999**; 12:168.
18. **Caso G**, Tyndall B, Sasvary D, Casella G, Vosswinkel J, Garlick P. Acute metabolic acidosis inhibits muscle protein synthesis in rats irrespective of the method used for measurements. *Diabetes, Nutrition & Metabolism* **1999**; 12:169.
19. **Caso G**, Garlick PJ, Frost RA, Gelato MC, McNurlan MA. In vivo lymphocyte protein synthesis rates in AIDS: the effect of growth hormone (hrGH). *FASEB J* **1998**;12(4):A209.
20. Marra M, Scalfi L, Bianchi L, et al. The limits of surface arm anthropometry in assessing body composition in chronic energy deficiency. *Proceeding book of the 2nd International Symposium on Eating Disorders*. Roma, **1993**:427-429.
21. Scalfi L, Contaldo F, **Caso G**. Body composition and energy expenditure in anorexia nervosa. *Proceedings book of the 2nd International Symposium on Eating Disorders*, **1993**:483-490.
22. Borrelli R, De Filippo E, **Caso G**, Contaldo F. Terapia dietetica dell'obesita'. *Atti del IV Convegno di Studio sull'Obesita'* **1990**.
23. Scalfi L, Coltorti A, Sapio C, **Caso G**, Contaldo F. Impedenziometria, antropometria e metabolismo basale. *Rivista Italiana di Nutrizione Parenterale ed Enterale* **1990**;8:151.
24. Scalfi L, Coltorti A, **Caso G**, Borrelli R, Contaldo F. Resting energy expenditure and postprandial thermogenesis in leanness and anorexia nervosa. *Int J Obes* **1990**;14(Suppl.2):98.
25. Scalfi L, Coltorti A, **Caso G**, Sapio C, Contaldo F. Impedenziometria e metabolismo basale. *Atti dell' XI Congresso Nazionale contro l'Obesita'* **1990**;(Abs. book):124.
26. Scalfi L, Coltorti A, Sapio C, **Caso G**, De Filippo E, Contaldo F. Metabolismo basale e composizione corporea nell'anoressia nervosa prima e dopo intervento nutrizionale. *Atti del Congresso Nazionale dell'Associazione Italiana di dietetica e Nutrizione Clinica*. **1990**.
27. Scalfi L, Coltorti A, **Caso G**, Sapio C, Contaldo F. Metabolismo basale e termogenesi post prandiale nella anoressia nervosa e nella magrezza costituzionale. *Rivista Italiana di Nutrizione Parenterale ed Enterale* **1990**;8:136.
28. Scalfi L, Coltorti A, **Caso G**, Sapio C, Contaldo F. Metabolismo basale e termogenesi postprandiale nella anoressia nervosa e nella magrezza costituzionale. *Atti del XI Congresso Nazionale contro l'obesita'*. **1990**;(abs.book):123.