

## Curriculum Vitae



### PERSONAL DETAILS

Name **Miriam**

Surname **Zacchia**

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miriam.zacchia@unicampania.it

Nationality Italian

Date and place of birth 07/07/1980, Caserta

### Employment

Dates July 2018-july 2021

Occupation or position held **(senior) Assistant Professor of Nephrology (RTDb)**

Name of employer University of Campania L. Vanvitelli, Department of Translational Sciences, Unit of Nephrology

Dates September 2015 –july 2018

Occupation or position held **(Junior) Assistant Professor of Nephrology (RTDa)**

Name of Employer University of Campania L. Vanvitelli, Department of Translational Sciences, Unit of Nephrology

## EDUCATION AND QUALIFICATIONS

Date	09/2015
Title of qualification awarded	<b>Assistant Professor</b>
Name and type of organization providing education and training	Second University of Naples
Date	01/2014
Title of qualification awarded	<b>PhD</b>
Name and type of organization providing education and training	Nephrology, Second University of Naples
Date	03/2013
Title of qualification awarded	<b>Nephrologist</b>
Name and type of organization providing education and training	Second University of Naples
Date	12/2008
Title of qualification awarded	<b>Post Doctoral Associate</b>
Name and type of organization providing education and training	Department of Internal Medicine, Section of Nephrology, Yale University, CT ( USA)
Date	2005
Title of qualification awarded	<b>Medical Doctor</b>
Name and type of organization providing education and training	Second University of Naples, Naples, Italy

## Research Experiences

Dates	2015-today
Occupation or position held	<b>Assistant Professor of Nephrology</b>

Main research activities

- Assembly of a database of rare renal disease patients referring to the Unit of Nephrology;
- Assessing renal function in an annual follow-up program of patients with rare renal diseases;
- Urine Proteomics and Metabolomics studies of patients with rare renal ciliopathies;
- Development of a gene panel (Nephroplex) to screen patients with genetic renal diseases;
- Application of mendeliome sequencing to genetic renal diseases.

Name and type of organisation providing education and training

University of Campania L. Vanvitelli

Dates

2015

Occupation or position held

**Renal Fellow**

Main activities

Observational study analyzing renal function in patients with renal ciliopathies; analysis of the mechanisms underlying renal concentrating defects

Name of organization providing education and training

Second University of Naples

Dates

2008-2014

Occupation or position held

**Medical Resident**

Main activities

✓*Research activities:*

- The study of the molecular mechanism underlying the defect in urinary concentrating mechanism in Bardet-Biedl syndrome;
- characterization of an activating mutation of the CaSR.

✓*Clinical activities:* End stage renal disease and dialysis; kidney stones; hypertension; diabetic nephropathy; immunological renal diseases; acute renal failure; tubulopathies and rare renal diseases.

Name and type of organization providing education and training

Second University of Naples

Dates

2006-2013

Occupation or position held

**Phd Student**

Main activities

Analysis of acid regulation of urinary citrate excretion

Name and type of organisation providing education and training	Second University of Naples																				
Dates	2006-2008																				
Occupation or position held	<b>Post Doctoral Associate</b>																				
Main activities	Basic science studies analyzing in vitro and in vivo the cell signaling mediating acid stimulation of the Na-citrate co-transporter																				
Name and type of organisation providing education and training	Yale University																				
<b>Teaching activities</b>	2015-today																				
	Course of Nephrology, Medicine and Surgery of Naples, Università degli studi della Campania L. Vanvitelli																				
	Course of Uropoietic Disease, Medicine in English language, Università degli studi della Campania L. Vanvitelli																				
<b>PERSONAL SKILLS AND COMPETENCES</b>																					
MOTHER TONGUE	<b>Italian</b>																				
OTHER LANGUAGES	<b>English</b>																				
	<table border="0"> <thead> <tr> <th><b>Understanding</b></th> <th><b>Speaking</b></th> <th><b>Writing</b></th> <th></th> </tr> <tr> <td>Listening</td> <td>Reading</td> <td>Spoken interaction</td> <td>Spoken production</td> </tr> </thead> <tbody> <tr> <td>C2 proficient user</td> <td></td> <td>C1 proficient user</td> <td></td> </tr> <tr> <td></td> <td>C2 proficient user</td> <td>C1 proficient user</td> <td></td> </tr> <tr> <td></td> <td>C1 proficient user</td> <td></td> <td></td> </tr> </tbody> </table>	<b>Understanding</b>	<b>Speaking</b>	<b>Writing</b>		Listening	Reading	Spoken interaction	Spoken production	C2 proficient user		C1 proficient user			C2 proficient user	C1 proficient user			C1 proficient user		
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**National and international Society membership**

- a. SIMI, Italian Society of Internal Medicine
- b. SIN, Italian Society of Nephrology
- c. ERA-EDTA

**Publications**

- Urinary proteome of inherited nephrolithiasis.  
Capolongo G, **Zacchia M**, Perna A, Viggiano D, Capasso G.  
Urolithiasis, 2018
- Zebrafish, a Novel Model System to Study Uremic Toxins:  
The Case for the Sulfur Amino Acid Lanthionine.  
Perna AF, Anishchenko E, Vigorito C, **Zacchia M**, Trepiccione F,  
D'Aniello S, Ingrosso D.  
Int J Mol Sci. 2018; 19(5).
- Acute and chronic effects of metabolic acidosis on renal  
function and structure.  
Tammaro G\*, **Zacchia M\***, Zona E, Zacchia E, Capasso G.  
J Nephrol. 2018; 31(4):551-559.  
\*equal contributors.
- Acid Stimulation of the Citrate Transporter NaDC-1  
Requires Pyk2 and ERK1/2 Signaling Pathways.  
**Zacchia M**, Tian X, Zona E, Aporn RJ, Preisig PA.  
J Am Soc Nephrol. 2018; 29(6):1720-1730.
- Urine Proteomics Revealed a Significant Correlation  
Between Urine-Fibronectin Abundance and Estimated-  
GFR Decline in Patients with Bardet-Biedl Syndrome.  
Caterino M\*, **Zacchia M\***, Costanzo M, Bruno G, Arcaniolo  
D, Trepiccione F, Siciliano RA; Mazzeo MF, Ruoppolo M,  
Capasso G.  
Kidney Blood Press Res. 2018; 43(2):389-405.  
\*Equal contributor.
- The importance of the thick ascending limb of Henle's loop  
in renal physiology and pathophysiology.  
**Zacchia M**, Capolongo G, Rinaldi L, Capasso G.  
Int Nephrol Renovasc Dis. 2018; 11:81-92.
- The renal lesions in Bardet-Biedl Syndrome: history before  
and after the discovery of BBS genes.  
Viggiano D, **Zacchia M**, Simonelli F, Di IOvio V, Anastasio P,  
Capasso G, De Santo NG.  
G Ital Nefrol. 2018; 35(suppl 70):95-100

- Impact of Local and Systemic Factors on Kidney Dysfunction in Bardet-Biedl Syndrome.  
**Zacchia M**, Capolongo G, Trepiccione F, Marion V.  
Kidney Blood Press Res. 2017; 42(5):784-793.
- Patho-physiology of renal dysfunction in Bardet-Biedl Syndrome.  
Zona E, **Zacchia M**, Di Iorio V, Capolongo G, Rinaldi L, Capasso G.  
G Ital Nefrol. 2017; 28;34(5):62-72.
- Integration of Proteomics and Metabolomics in Exploring Genetic and Rare Metabolic Diseases.  
Costanzo M, **Zacchia M**, Bruno G, Crisci D, Caterino M, Ruoppolo M.  
Kidney Dis. 2017; 3(2):66-77.
- The Kidney in Bardet-Biedl Syndrome: Possible Pathogenesis of Urine Concentrating Defect.  
**Zacchia M**, Di Iorio V, Trepiccione F, Caterino M, Capasso G.  
Kidney Dis.2017;3(2):57-65.
- Delay in Renal Hemodynamic Response to a Meat Meal in Severe Obesity.  
Anastasio P, Viggiano D, **Zacchia M**, Altobelli C, Capasso G, Gaspare De Santo N.  
Nephron. 2017;136(2):151-157 Feb 1;18(1):10.
- Genetic characterization of Italian patients with Bardet-Biedl syndrome and correlation to ocular, renal and audio-vestibular phenotype: identification of eleven novel pathogenic variants.  
Esposito G\*, Testa F\*, **Zacchia M\***, Crispo AA, Di Iorio V, Capolongo G, Rinaldi L, D'Antonio M, , Fioretti T, Iadicicco P, Rossi S, Franzè A, Marciano E, Capasso G, Simonelli F, Salvatore F.  
BMC Med Genet. 2017. 1; 18(1):10.  
\*Equal contributor
- Potassium: From Physiology to Clinical Implications.  
**Zacchia M**, Abategiovanni ML, Stratigis S, Capasso G.  
Kidney dis 2016; 2(2):72-9.
- Renal phenotype in Bardet-Biedl Syndrome: a combined defect of urinary concentration and dilution is associated with defective urinary AQP2 and UMOD excretion.  
**Zacchia M**, Zacchia E, Zona E, Capolongo G, Raiola I, Rinaldi L, Trepiccione F, Ingrosso D, Perna A, Di Iorio V, Simonelli F, Moe OW, Capasso G.  
Am J Physiol-Renal Physiol;2016;311(4): F686-F694

- Vitamin-D status and mineral metabolism in two ethnic populations with sarcoidosis.  
Capolongo G, Xu LH, Accardo M, Sanduzzi A, Stanziola AA, Colao A, Agostini C, **Zacchia M**, Capasso G, Adams-Huet B, Moe OW, Maalouf NM, Sakhaee K, Hsia CC.  
J investing Med 2016; 64(5):1025-34.
- Renal Handling of uric acid.  
**Zacchia M**, Capolongo G, Rinaldi L, Capasso G:  
G ital Nefrol. 2015 ; 32 suppl 62.
- The importance of uromodulin as regulator of salt reabsorption along the thick ascending limb.  
**Zacchia M**, Capasso G.  
Nephrol Dial Transplant.2015; 30(2):158-60.
- Knockdown Of The BBS10 Gene Product Affects Apical Targeting Of AQP2 In Renal Cells: A Possible Explanation For The Polyuria Associated With Bardet-Biedl Syndrome.  
**Zacchia M**, Esposito G, Carmosino M, Barbieri C, Zacchia E, Crispo A, Fioretti T, Trepiccione F, Di Iorio V, Simonelli F, Salvatore F, Capasso G, Svelto M, Procino G. J Genet Syndr Gene Ther, 2014.
- The role of the kidney is salt-sensitive hypertension.  
Trepiccione F, **Zacchia M**, Capasso G. Clin Exp Nephrol. 2012; 16(1):68-72.
- Dehydration: a new modulator of klotho expression.  
**Zacchia M**, Capasso G.  
Am J Physiol Renal Physiol. 2011;301(4):F743-4.
- Low urinary citrate: an overview.  
**Zacchia M**, Preisig P.  
J Nephrol. 2010; suppl 16:S49-56.

- Hypertension and renal calcium transport.  
Petrazzuolo O, Trepiccione F, **Zacchia M**, Capasso G. J Nephrol. 2010; 23 suppl 16:S112-7.
  
- Acid regulation of NaDC-1 requires a functional Endothelin B receptor.  
Liu L\*, **Zacchia M\***, Tian X\*, Wan L, Sakamoto A, Yanagisawa M, Alpern RJ, Preisig PA.  
Kidney Int. 2010; 78(9):895-904.
  
- Genomic and proteomic approaches to renal cell carcinoma.  
Zacchia M, Villasi A, Capasso G, Morelli F, De Vita F, Capasso G.  
J Nephrol 2008; 21(6):836-42.
  
- Nephrotic syndrome: new concepts in the pathophysiology of sodium retention.  
**Zacchia M**, Trepiccione F, Morelli F, Pani A, Capasso G. J Nephrol 2008; 21(6):836-42.
  
- Upregulation of apical sodium-chloride cotransporter and basolateral chloride channels is responsible for the maintenance of salt-sensitive hypertension.  
Capasso G, Rizzo M, Garavaglia ML, Trepiccione F, **Zacchia M**, Mugione A, Ferrari P, Paulmichi M, Lang F, Loffing J, Carrel Damiano S, Wagner C, Bianchi G, Meyer L.  
Am J Physiol Renal Physiol. 5/2008; 295(2):F556-67
  
- Parvalbumin: a key protein in early distal tubule NaCl reabsorption.  
**Zacchia M**, Capasso G.  
Nephrol Dial Transplant 2008;23(4):1109-11.
  
- Acid-base transport in Henle's loop: the effects of reduced renal mass and diabetes.  
Capasso G, Evangelista C, **Zacchia M**, Trepiccione F, Acone D, Cantone A, Pollastro RM, Rizzo M. J Nephrol. 2006;19 suppl 9:S11-7.
  
- Channels, carriers, and pumps in the pathogenesis of sodium-sensitive hypertension.  
Capasso G, Cantone A, Evangelista C, **Zacchia M**, Trepiccione F, Acone D, Rizzo M.  
Semin Nephrol. 2005; 25(6):419-24.



**Chapters in books**

- Medicina Interna Sistemática, Settima Edizione, Rugarli. Nefropatie tubulari e tubulo-interstiziali. Capasso G, **Zacchia M.**
- Critical Care Nephrology Second Edition, Ronco, Bellomo, Kellum, The physiology of the loop of Henle, Capasso G, Trepiccione F, **Zacchia M.**
- The kidney: Physiology and Pathophysiology, Seldin and Giebish, Fifth edition, Potassium deficiency, Trepiccione, , **Zacchia M,** Capasso G.

Medicina Interna Sistemática, Sesta Edizione, Rugarli. Nefropatie tubulari e tubulo-interstiziali. Capasso G, **Zacchia M .**