ALL. B

Decreto Rettore Università di Roma “La Sapienza” D.R. n. 1598/2024 del 03/07/2024

FRANCESCO TREPICCIONE
Curriculum Vitae

Naples
Date 21/08/2024

Part I – General Information

Full Name	FRANCESCO TREPICCIONE
Spoken Languages	ITALIAN, ENGLISH (C1), FRENCH (A2)

Part II – Education

Type	Year	Institution	Notes (Degree, Experience)
University Graduation	2006	Second University of Naples, currently University of Campania “L. Vanvitelli”	MD degree
PhD	2012	Faculty of Health, Aarhus University, Aarhus (DK)	PhD in Medicine
PhD	2016	Second University of Naples, XXVIII cicle	PhD in Nephrological Sciences
Licensure 01	2006	Ordine dei Medici e Chirughi di Caserta	Medical Licence
Licensure 02	2018	ANVUR	Associate professor National Scientific Habilitation (ASN)
Licensure 03	2022	ANVUR	Full professor National Scientific Habilitation (ASN)

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
Jan/2016	Dec/2018	University of Campania "L. Vanvitelli"	RTD-A
Dec/2018	to present	University of Campania "L. Vanvitelli"	Associate Professor
Jun/2022	to present	University of Campania "L. Vanvitelli"	Elected as member of the junta of the Department of Translational Medical Sciences
2016	To present	University of Campania "L. Vanvitelli"	Board Member of the PhD course in Clinical and Experimental Medical Sciences
Jun/2022		University of Campania "L. Vanvitelli"	President of the Evaluation Commission of the 34° cicle - Doctor Europaeus- of the PhD Program in Clinical and Experimental Sciences
Mar/2024		University of Campania "L. Vanvitelli"	President of the Evaluation Commission of the 36° cicle - Doctor Europaeus- of the PhD Program in Clinical and Experimental Sciences

IIIB – Other Research Appointments

Start	End	Institution	Position
Oct/2005	Dec/2005	Laboratory of Kidney and Electrolyte Metabolism of National Heart Lung Blood Institute, NIH (Bethesda) (USA), Prof. M. Knepper	Visiting Student
Oct/2009	Dec/2009	Laboratory of Kidney and Electrolyte Metabolism of National Heart Lung Blood Institute, NIH (Bethesda) (USA), Prof. M. Knepper	Visiting Researcher
Mar/2012	Apr/2012	Department of Nephrology and Hypertension, Friedrich-Alexander-University Erlangen-Nurinberg (GE), Prof J. Tietze	Visiting Researcher
Jul/2012	Aug/2012	Department of Biomedicine, Aarhus University (DK) Prof. Birgitte Christensen	Visiting Researcher
Set/2012	Oct/2013	Department of Cardio-Thoracic and Respiratory Sciences, Second University of Naples	Post-doc
Nov/2013	Dec/2015	European Hospital George Pompidou, PARCC-INSERM U970, Paris (FR) Prof. D. Eladari	Post-doc
Jan/2016	to present	Biogem, Institute of Molecular Biology and Genetics, Ariano Irpino, (IT)	Chief of Translational Nephrology Lab
May/2024	to present	ERKNET, European Rare Kidney Disease Network	Co-chair Workgroup Metabolic Nephropath & stone disorders

IIIC – Clinical Appointments

Start	End	Institution	Position
Jul/2007	Jul/2012	UOC Nephrology at Second University of Naples	Nephrology Resident
Set/2012	Dec/2015	CEDIAL Ambulatory Hemodialysis Clinic	Chief Nephrologist
Apr/2016	to present	UOC Nephrology and Dialysis at AUO Policlinico "L.Vanvitelli", Naples (IT)	Nephrologist in charge of the hemodialysis and peritoneal dialysis service
Jan/2017	to present	UOC Nephrology and Dialysis at AUO Policlinico "L.Vanvitelli", Naples (IT)	Chief Nephrologist of ERKNET tubulopathies outpatient clinic

Part IV – Teaching experience

Year	Institution	Lecture/Course
2011- 2015	Second University of Naples, currently University of Campania "L. Vanvitelli"	Teaching Assistant (Cultore della Materia) Nephrology course for MD students
2016 to present	University of Campania "L. Vanvitelli"	Nephrology course for MD students (4 CFU) Settore: MED/14, Tipo attività: B – Caratterizzante
2016 to present	University of Campania "L. Vanvitelli"	Electrolytes and Acid Base homeostasis course at Nephrology Residency program
2016 to present	University of Campania "L. Vanvitelli"	Nephrology at Rheumatology Residency program
2021 to present	University of Campania "L. Vanvitelli"	2 level Master for Clinicians entitled "Master in Clinical Science on Rare Disease"
2022	Erasmus plus program for teachers at Aarhus University (DK)	Electrolytes and Acid Base homeostasis course for MD and PhD students
2024 to present	University of Campania "L. Vanvitelli"	Director of the 1 level Master for Nursing entitled "Dialytic Therapies"

Part V - Society memberberships, Awards and Honors

V-A – Society memberberships

Year	Title
Since 2009	Member of Italian Society of Nephrology (SIN)
Since 2009	Associate Faculty Member of F1000 Prime
Since 2010	Member of European Renal Association (ERA)
Since 2011	Member of Working Group on Inherited Kidney Disease (WGIKD) ERA
2020 - 2023	Elected Council Member of the Italian Society of Nephrology

V-B – Awards and Honors

Year	Title
2005	Award for the best MD thesis at Second University of Naples
2011	Award for the most interactive fellow at 4th European Masterclass In Renal Physiology and Pathophysiology for Clinicians, Geneve (CH)
2013	Amgem-Fromo Fellowship in Renal Physiology and Pathophysiology
2013	ERA-EDTA long term Fellowship LTF141-2013
2022	**ERA Stanley Shaldon Award for Young Investigators in Translational Science**
2023	Ambassador for the ERA at the Korean Society of Nephrology 2023

V-C – Journal Editorial Board

Role	Journal
Associate Editor for Clinical Science	Kidney and Blood Pressure Research
Editorial Board Member	Journal of Nephrology
Editorial Board Member	Giornale Italiano di Nefrologia

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

VI-A: COMPETITIVE RESEARCH GRANT

Year	Title	Program	Grant value
2016	Telethon Exploratory Grant GEP 15086	TELETHON	PI: 45 K
2016	Bandi di Ricerca SIN 2016	SIN	PI: 50 K
2017	Finanziamento delle attività base di ricerca	ANVUR n. 20/2017	PI: 3 K
2017	Biomedical Research Grant	Canadian Kidney Foundation	I: 9K
2018	Grant Banca D'Italia	Banca d'Italia	PI: 25 K

2018	Grant VALERE Unicampania	Unicampania	PI: 10 K
2020	Telethon Seed Grant	TELETHON	PI: 50 K
2022	PNRR SALUTE PNRR-MAD-2022-12376413	Ministero Salute	Local PI: 400 K Total budget 1000K
2023	Conto terzi per VIVISOL	VIVISOL srl	PI: 400 K

VI-B: NO PROFIT STUDIES:

Year	Title	Program	Grant value
2015	A Randomized Controlled Clinical Trial of Lithium in Spinocerebellar Ataxia Type 2: clinical and neuroimaging results.	Associazione Italiana per la lotta alle Sindromi Atassiche (AISA)	Local PI
2019	A double-blind, randomized, placebo-controlled pilot trial of atorvastatin for nephrogenic diabetes insipidus in lithium users	Kidney Foundation of Canada	Local PI
2023	Exploratory study into the effect of salt supplementation in Gitelman syndrome	Dutch Kidney Fundation	Local PI

VI-C: PROFIT (SPONSOR INITIATED) STUDIES:

Year	Title	Program	Role
2021	An International, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Effect of Sodium Zirconium Cyclosilicate on Arrhythmia-Related Cardiovascular Outcomes in Participants on Chronic Hemodialysis with Recurrent Hyperkalemia (DIALIZE-Outcomes)	Astra Zeneca	Local PI
2022	“A Study to EvaLuate the EffIcacy and Safety of XyloCore, a Glucose SparIng ExpeRimental Solution, for Peritoneal Dialysis - The ELIXIR Study"	Iperboreal Pharma	Local PI
2024	PURE, a randomized controlled trial to evaluate Peritoneal Ultrafiltration with PolyCore™ in Refractory Congestive Heart Failure	Iperboreal Pharma	Local PI
2024	A Phase III, Randomised, Double -Blind, Active-controlled Study to Assess the Efficacy, Safety and Tolerability of Baxdrostat in Combination with Dapagliflozin Compared with Dapagliflozin Alone on Chronic Kidney Disease (CKD) Progression in Participants with CKD and High Blood Pressure	Astra Zeneca	Local PI

Part VII – Research Activities

Keywords	Brief Description
Water-Electrolyte Balance Acid-Base Homeostasis Hypertension Kidney Physiology Tubulopathy Inherited kidney disease Experimental and Clinical Physiology	My research interests are based on a translational medicine approach. As physician-scientist, I am focused on implementing knowledge on kidney physiology and the mechanisms of renal diseases with the aim of developing potential new therapies or means of prevention and diagnosis. Because of its highly complex physiology and broad spectrum of clinically relevant conditions, the kidney is the best candidate for translational investigation. The objects of my research are mainly rare kidney diseases and, in particular, a niche of them called tubulopathies. However, over the years, due to the implementation of some experimental models and/or findings, I developed two lines of research on the mechanisms of hypertension and preservation of peritoneal membrane integrity during peritoneal dialysis. Being the principal investigator of the laboratory of Translational Nephrology at the Biogem Institute of Molecular Biology and Genetics (https://www.biogem.it/labtranslationalnephrology) and running the tubulopathy outpatient clinic of the UOC of Nephrology at the AOU Policlinico "L. Vanvitelli" have been the cornerstones of my research activity. Although it is outside highly cited research fields, this area is challenging and stimulating.
	Salt-sensitive hypertension: this research area is applicable to experimental and clinical models of hypertension and helps identify crucial mechanisms of salt reabsorption along the kidney. See references: PMID: 38941187; 37463050; 35921220; 33398797; 28064162; 27151921; 26672470; 26005870; 25794953; 22038257; 21170867
	Nephrogenic Diabetes Insipidus primary and secondary to lithium and hypokalemia: These studies pioneered the identification of a novel mechanism of cellular plasticity in the renal collecting duct. We provided for the first time evidence of a cellular conversion mechanism between principal and intercalated cells triggered by lithium and hypokalemia. In addition, evidence on drug repurposing for the treatment of primary and secondary NDI was provided. Experimental findings on this topic were translated into two no profit clinical trials in a multidisciplinary collaboration with Italian neurologists and Canadian psychiatrics with the aim of identifying early means of prevention of lithium nephropathy and to repurpose drugs (statins) to limit lithium-induced polyuria. See for reference: PMID: 35894286; 34762363; 34084454; 33727367; 33367818; 33123363; 33009446; 32621644; 32235870; 30271355; 30012135; 29354070; 29344506; 29178032; 28868293; 25346067; 24786704; 23825070
	Distal renal tubular acidosis (dRTA): This study aimed to elucidate the relationship between functional impairment of the proton pump complex responsible for dRTA and the development of a salt-wasting state, which was previously unclear in patients. The experimental model was transferred to the development and implementation of a clinical physiology model to increase the diagnostic rate of incomplete dRTA. See for reference: PMID: 34718761; 34556302; 33914889; 33770395; 30773598; 30146013; 29993276; 28585052; 27932475; 27044666
	Renal Fanconi Syndrome secondary to glycogen storage disease (GSD) Ib and XI: This study aimed to repurpose the SGLT2 inhibitor dapagliflozin for the treatment of the renal pattern of GSD-Ib and GSD-XI, also known as Fanconi Bickel Syndrome. In a complete translational approach, we identified the first

	causative treatment for the Fanconi Bickel Syndrome in the use of SGLT2-inhibitors. In addition, for the GSD-Ib, we generated proof of concept evidence for the efficacy of dapagliflozin in ameliorating renal phenotype and neutrophil activity. See for reference: PMID: 37910600; 35820785; 34712576
	RRAGD-associated autosomal dominant kidney hypomagnesemia with cardiomyopathy: this is the most recent research field opened, with the identification of a novel form of tubulopathy associated with magnesium wasting and severe sign of cardiomyopathy. We identified the mechanism of disease secondary to gain-of-function mutation of RRGAD that causes lysoauthophagosome alteration. International collaboration allows extensive clinical and therapeutic characterization of the patients identified thus far. See reference: PMID: 38901414; 37188688

Part VIII – Academic Service as review

VIII-A Peer Review Activity (only journals in category quartile Q1 are reported)

Journal Name	Impact Factor	Quartile
J. OF AMERICAN SOCIETY OF NEPHROLOGY	10,5	Q1
ACTA PHYSIOLOGICA	5,6	Q1
KIDNEY INTERNATIONAL REPORTS	5,1	Q1
NEPHROLOGY DIALYSIS TRANSPLANTATION	4,8	Q1
AMERICAN JOURNAL OF NEPHROLOGY	4,3	Q1
AMERICAN J. OF PHYSIOLOGY-RENAL PHYS	3,7	Q1
INTERNAL AND EMERGENCY MEDICINE	3,2	Q1

Source from Web of Science

VIII-B Grant Review Activity

INSTITUTION NAME	COUNTRY
AFM TELETHON	FRANCE
DUTCH KIDNEY FOUNDATION	NETHERLANDS
AARHUS UNIVERSITY	DENMARK
ANR (AGENCE NATIONALE DE LA RECHERCHE)	FRANCE
MEDICAL RESEARCH COUNCIL	UNITED KINGDOM
UNIVERSITY OF NAPLES “FEDERICO II”	ITALY

Part IX – Summary of Scientific Achievements

WoS ID: W-4493-2017
ORCHID: 0000-0002-0622-6612
SCOPUS ID: 9276633500

IX-A International papers

Product type	Num	1st	Last	Corresponding	Database	Start	End
Total	96	17	10	18	Scopus	2005	2024
Research articles	74	10	9	15	Scopus	2005	2024
Review	18	5	1	2	Scopus	2005	2024
Editorials	3	1	-	1	Scopus	2005	2024
Letters	1	1	-	-	Scopus	2005	2024
IF > 6	**20**	**8**	**2**	**4**	**Scopus**	**2005**	**2024**

These data include 1 co-last authorship and 1 co-first authorship.

IX-B National papers and Book chapters

Among the 4 papers published in National journals (in Italian) 2 are as first author and 1 as last author. All the chapters book listed on scopus are published in prestigious international books. This is the case for chapters present in three consecutive editions of the famous ***Seldin and Giebisch's The Kidney: Physiology and Pathophysiology*** and in two consecutive editions of the ***Critical Care Nephrology.***

Total Impact factor	420
Average Impact Factor per Product	4.8
Total Citations	1652
Average Citations per Product	15.7
Hirsch (H) index	24
Normalized H index*	1.3

*H index divided by the academic seniority.

Part X– Selected Publications

X-A List of publication for scientific activity evaluation (2014-2024)

n	Authors	Title	Citation	Year	Ref data	IF
1	**Trepiccione, F;** Iervolino, A;D'Acierno, M; Siccardi, S; Costanzo, V; Sardella, D; De La Motte, LR; D'Apolito, L; Miele, A; Perna, AF; Capolongo, G; Zacchia, M; Frische, S; Nielsen, R; Staiano, L; Sambri, I; De Cegli, R; Unwin, R; Eladari, D; Capasso, G.	The SGLT2 inhibitor dapagliflozin improves kidney function in glycogen storage disease XI	4	2023	Sci. Transl. Med; 15 (720)	15.8
2	Sambri, I; F.erniani, M; Campostrini, G; Testa, M; Meraviglia, V; de Araujo, MEG; Dokladal, L; Vilardo, C; Monfregola, J; Zampelli, N; Blanco, FD; Torella, A; Ruosi, C; Fecarotta, S; Parenti, G; Staiano, L; Bellin, M; Huber, LA; De Virgilio, C; **Trepiccione, F**; Nigro, V; Ballabio, A	RagD auto-activating mutations impair MiT/TFE activity in kidney tubulopathy and cardiomyopathy syndrome	6	2023	Nat.Commun 14 (1).	14.7
3	D'Acierno, M; Resaz, R; Iervolino, A; Nielsen, R; Sardella, D; Siccardi, S; Costanzo, V; D'Apolito, L; Suzumoto, Y; Segalerba, D; Astigiano, S; Perna, AF; Capasso, G; Eva, A; **Trepiccione, F**	Dapagliflozin Prevents Kidney Glycogen Accumulation and Improves Renal Proximal Tubule Cell Functions in a Mouse Model of Glycogen Storage Disease Type 1b	7	2022	J. Am. Soc. Nephrol.; 33 (10):1864-1875	13.6
4	Costanzo, V; D'Apolito, L; Sardella, D; Iervolino, A; La Manna, G; Capasso, G; Frische, S; **Trepiccione, F**	Single nephron glomerular filtration rate measured by linescan multiphoton microscopy compared to conventional micropuncture	9	2022	Pflugers Arch.;474 (7):733-741	4.5
5	**Trepiccione, F**; Suzumoto, Y; Perna, A; Capasso, G	Pure Gitelman-like syndrome secondary to SLC26A4 (pendrin) mutation	6	2021	Kidney Int.; 100 (4): 947-948	19

n	Authors	Title	Citation	Year	Ref data	IF
6	Petrillo, F; Iervolino, A; Angrisano, T; Jelen, S; Costanzo, V; D'Acierno, M; Cheng, L; Wu, Q; Guerriero, I; Mazzarella, MC; De Falco, A; D'Angelo, F; Ceccarelli, M; Caraglia, M; Capasso, G; Fenton, RA; **Trepiccione, F**	Dysregulation of Principal Cell miRNAs Facilitates Epigenetic Regulation of AQP2 and Results in Nephrogenic Diabetes Insipidus	15	2021	J. Am. Soc. Nephrol.; 32 (6): 1339-1354	15
7	**Trepiccione, F**; Walsh, SB; Ariceta, G; Boyer, O; Emma, F; Camilla, R; Ferraro, PM; Haffner, D; Konrad, M; Levtchenko, E; Lopez-Garcia, SC; Santos, F; Stabouli, S; Szczepanska, M; Tasic, V; Topaloglu, R; Vargas-Poussou, R; Wlodkowski, T; Bockenhauer, D	Distal renal tubular acidosis: ERKNet/ESPN clinical practice points	24	2021	Nephrol. Dial. Transplant.; 36 (9): 1585-1596	7.2
8	Prosperi, F; Suzumoto, Y; Marzuillo, P; Costanzo, V; Jelen, S; Iervolino, A; Guarino, S; La Manna, A; Del Giudice, EM; Perna, AF; Zacchia, M; Cordat, E; Capasso, G; **Trepiccione, F**	Characterization of five novel vasopressin V2 receptor mutants causing nephrogenic diabetes insipidus reveals a role of tolvaptan for M272R-V2R mutation	12	2020	Sci Rep;10 (1)	6
9	Iervolino, A; Prosperi, F; De La Motte, LR; Petrillo, F; Spagnuolo, M; D'Acierno, M; Siccardi, S; Perna, AF; Christensen, BM; Frische, S; Capasso, G; **Trepiccione, F**	Potassium depletion induces cellular conversion in the outer medullary collecting duct altering Notch signaling pathway	19	2020	Sci Rep;10 (1)	6
10	**Trepiccione F**, Altobelli C, Capasso G, Christensen BM, Frische S.	Lithium increases ammonium excretion leading to altered urinary acid-base buffer composition	8	2018	Journal Nephrol	3.7
11	Sinning, A; Radionov, N; **Trepiccione, F**; López-Cayuqueo, KI; Jayat, M; Baron, S; Cornière, N; Alexander, RT; Hadchouel, J; Eladari, D; Hübner, CA; Chambrey, R	Double Knockout of the Na+-Driven Cl-/HCO3--Exchanger and Na+/Cl-Cotransporter Induces Hypokalemia and Volume Depletion	47	2017	J. Am. Soc. Nephrol.;28 (1): 130-139	8.7

n	Authors	Title	Citation	Year	Ref data	IF
12	**Trepiccione, F**; Soukaseum, C; Baudrie, V; Kumai, Y; Teulon, J; Villoutreix, B; Cornière, N; Wangemann, P; Griffith, AJ; Choi, YB; Hadchouel, J; Chambrey, R; Eladari, D	Acute genetic ablation of pendrin lowers blood pressure in mice	30	2017	Nephrol. Dial. Transplant.; 32 (7): 1137-1145	4.6
13	Mumtaz, R; **Trepiccione, F**; ***(sharing the co-authorship)*** Hennings, JC; Huebner, AK; Serbin, B; Picard, N; Ullah, AKMS; Paunescu, TG; Capen, DE; Lashhab, RM; Mouro-Chanteloup, I; Alper, SL; Wagner, CA; Cordat, E; Brown, D; Eladar, D; Hubner, CA	Intercalated Cell Depletion and Vacuolar H+-ATPase Mistargeting in an Ae1 R607H Knockin Model	32	2017	J. Am. Soc. Nephrol.; 28 (5) 1507-1520	8.7
14	**Trepiccione, F**; Gerber, SD; Grahammer, F; Lopez-Cayuqueo, KI; Baudrie, V; Paunescu, TG; Capen, DE; Picard, N; Alexander, RT; Huber, TB; Chambrey, R; Brown, D; Houillier, P; Eladari, D; Simons, M	Renal Atp6ap2/(Pro)renin Receptor Is Required for Normal Vacuolar H+-ATPase Function but Not for the Renin-Angiotensin System	80	2016	J. Am. Soc. Nephrol.; 27 (11): 3320-3330	9
15	**Trepiccione, F**; Soukaseum, C; Iervolino, A; Petrillo, F; Zacchia, M; Schutz, G; Eladari, D; Capasso, G; Hadchouel, J	A fate-mapping approach reveals the composite origin of the connecting tubule and alerts on single-cell-specific KO model of the distal nephron	32	2016	Am. J. Physiol.-Renal Physiol.; 311 (5): F901-F906	3.6
16	**Trepiccione, F**; Pisitkun, T; Hoffert, JD; Poulsen, SB; Capasso, G; Nielsen, S; Knepper, MA; Fenton, RA; Christensen, BM	Early targets of lithium in rat kidney inner medullary collecting duct include p38 and ERK1/2	41	2014	Kidney Int. 86 (4); 757-767	8.6

Data 21/08/2024

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