

SHORT CURRICULUM VITAE

Name: Adriana Mónica TORRES

Date of birth: March 29 th, 1960

Nationality: Argentina

Marital Status: Married

Languages: English, Italian

University education and appointments in the Rosario National University-Faculty of Biochemical and Pharmaceutical Sciences.

1983-Promotion (Biochemist)

1988-Promotion (Doctor in Biochemistry, PhD)

Thesis: "Physiologic response of rat kidney to different glutathione tissular levels"

1983-1988 Class Assistant, Subject: Physiology

1988-1989 Research Fellow of the National Council of Scientific and Technical Research (CONICET)

1988-1993 Assistant Professor. Subject: Pharmacology

1993-2014. Associate Professor. Subject: Pharmacology

2014-now Main Professor. Subject: Pharmacology

1993-now. Researcher of the National Council of Scientific and Technical Research (CONICET). Category: Principal Researcher since January 2008.

2002-2010 // 2016-2019. ViceDirector of the Department of Physiological Sciences.

2008-now, Director of Pharmacology.

2015-2017 President of Institutional Animal Care and Use Committee (IACUC)

Overseas Postdoctoral Training

*Research fellow of the Third World Academy of Sciences (TWAS) in the University of Trieste, Italy (October 1989-October 1990)

*Research fellow of "Fondo per lo studio delle malattie del Fegato" in the University of Trieste, Italy.(October-December 1991)

*Research fellow of the University of Trieste (January-December 1992)

*Research fellow of Italian Department of Foreign Affairs in the University of Trieste (January-September 1993)

International Scientific Visits

*International Cooperation Agreement CONICET /Japan Society for the Promotion of the Science (JSPS).

June -September, 2004

Department of Pharmacology and Toxicology. Kyorin University School of Medicine, Tokyo, Japan. (Supervisor: Prof. Hitoshi Endou)

*International Cooperation Agreement CONICET/ Deutscher Akademischer Austauschdienst (DAAD)

August -September, 2005

Zentrum Physiologie und Pathophysiologie. Goettingen, Germany.(Supervisor: Prof. Gerhard. Burckhardt)

*International Cooperation Agreement Science and Technique Secretary (Argentina)/Foreign Affairs Minister (Italy)

June –July 2006

Dipartimento di Biochimica, Biophysica e Chimica della Macromolecola. Università di Trieste, Italy (Italian Supervisor: Prof. S. Passamonti; Argentine Supervisor: Prof. A. Torres).

*Scientific Visit to the Lab of Prof. Sanjay Nigam.School of Medicine, University of California, San Diego, California, USA.

October-November 2009

Honors and Awards

1.-**1994** Dr De Robertis Award to Dra **Torres Adriana M.**, National Secretary of Science and Technique (Argentina)

2.-**2007**.-Prize for the best Poster Communication presented in the XXXIX Annual Meeting of the Argentine Society of Experimental Pharmacology. Buenos Aires, November 2007.

Title: “Evolution of organic anions renal excretion in rats with bilateral ureteral obstruction.

Authors: Villar Silvina, Brandoni Anabel, **Torres Adriana M.**

3.- **2008**.-Spetial mention to the Oral Communication presented in the XXXIX Annual Meeting of the Argentine Society of Experimental Pharmacology. Tandil, December 2008.

Title: “OAT5 and NaDC1 urinary excretion in ischemic acute renal failure ”

Authors: Di Justo, Gisela; **Torres, Adriana M.**

4.- **2011**.-Spetial mention to the Oral Communication presented in the XXXIX Annual Meeting of the Argentine Society of Experimental Pharmacology. Tucumán, November 2011

Title: “Renal and hepatic expression of organic anion transporters in rat treated with mercuric chloride ”

Authors: Hazelhoff María H., Bulacio Romina P., Trebucovich Mara S., Brandoni Anabel, Endou Hitoshi, Passamonti Sabina; **Torres, Adriana M.**

5.-**2014** Spetial mention to the Poster Communication presented in the 3° International Meeting of Pharmaceutical Sciences RICIFA 2014. Córdoba, Argentina, September 2014.

Title: “Methotrexate increases the urinary excretion of the Organic Anion Transporter 5 in rats”

Authors: Severin María J., Trebucovich Mara S., Buszniez Patricia, Brandoni Anabel, **Torres Adriana M.**

6.-**2014** 1° Prize for the best Poster Communication presented in the LIX Scientific Anual Meeting of the Argentine Society of Clinic Research (SAIC). Mar del Plata, Argentina, November 2014.

Title: “Expresión renal y excreción en exosomas urinarios del transportador de aniones orgánicos 5 (Oat5) y de la proteína caveolina 2 (Cav2) en ratas tratadas con cisplatino”

Authors: Bulacio, Romina Paula; **Torres, Adriana M.**

7.-**2016**-1° Prize for the best Poster Communication presented in the

LXI Scientific Annual Meeting of the Argentine Society of Clinic Research (SAIC). Mar del Plata, Argentina, November 2016.

Title: "Renal expression and urinary excretion of the organic anion transporter 5 (Oat5) in rats with obstructive nephropathy"

Authors: Campagno, R.V.; Nosetto, E.C.; Severin, M.J.; Brandoni, A.; **Torres, A.M.**

7.-2018-1° Prize for the best Poster Communication presented in the LXIII Scientific Annual Meeting of the Argentine Society of Clinic Research (SAIC). Mar del Plata, Argentina, November 2018.

Title: "Renal expression and function of sodium-dicarboxylate cotransporter 1 (NaDC1) in rats with bilateral ureteral obstruction"

Authors: Campagno, R.V.; Nosetto, E.C.; Brandoni, A.; **Torres, A.M.**

Scientific Publications

***Full Papers**

1.-"Rat kidney function related to tissue glutathione levels".

Adriana M. Torres, Joaquín V. Rodríguez, Elena J. Ochoa, and M. Mónica Elías.
Biochemical Pharmacology 35, 3355-3358 (1986). (pISSN 0006-2952).

2.-"Renal and hepatic glutathione pool modifications in response to depletion treatments".

Joaquín V. Rodríguez, **Adriana M. Torres**, and M. Mónica Elías.

Canadian Journal of Physiology and Pharmacology 65, 84-86 (1987). (pISSN 0008-4212).

3.-"Urinary concentrating defect in glutathione depleted rats".

Adriana M. Torres, Joaquín V. Rodríguez, and M. Mónica Elías.

Canadian Journal of Physiology and Pharmacology 65, 1461-1466 (1987). (pISSN 0008-4212).

4.-"Vulnerability of the thick ascending limb to glutathione depletion in rat kidney: Effects of diuretics and indomethacin".

Adriana M. Torres, Joaquín V. Rodríguez, and M. Mónica Elías.

The Journal of Pharmacology and Experimental Therapeutics 250, 247-253 (1989). (pISSN 0022-3565).

5.-"The implication of renal glutathione levels in mercuric chloride nephrotoxicity".

Guillermina Girardi, **Adriana M. Torres**, and M. Mónica Elías.

Toxicology 58, 187-195 (1989). (pISSN 0300-483x).

6.-"Rat kidney function related to tissue glutathione levels. Effects of different glutathione depletors".

Adriana M. Torres, Joaquín V. Rodríguez, and M. Mónica Elías.

Comparative Biochemistry and Physiology C: Comparative Pharmacology 94 C (2) 581-583 (1989). (pISSN 03064492).

7.-"Effect of glutathione depletion on urinary acidification in the rat".

Joaquín V. Rodríguez, **Adriana M. Torres**, and M. Mónica Elías.

Biochemical Medicine and Metabolic Biology 45:310-318 (1991). (pISSN 0885-4505).

8.-"Role of lipid peroxidation on renal dysfunction associated to glutathione depletion.Effect of vitamin E".

Adriana M. Torres, Elena J. Ochoa, and M. Mónica Elías.

Toxicology 67: 163-172 (1991). (pISSN 0300-483x).

9.- "Effect of ethynilestradiol and epomediol on bile flow and biliary lipid composition in the rat"

Joaquín V. Rodríguez, **Adriana M. Torres**, Gian Carlo Lunazzi, and Claudio Tiribelli.

Biochemical Pharmacology 43:1289-1293 (1992). (pISSN 0006-2952).

10.- "Carrier mediated transport of tetrabromosulfonephthalein by liver plasma membrane vesicles. Molecular requirements and determinats".

Adriana M. Torres, Joaquín V. Rodriguez, Gian C. Lunazzi, and Tiribelli, C.

American Journal of Physiology 263:G338-G344 (1992). (pISSN 0193-1857).

11.-"Difference in the hepatic uptake of tetra- and dibromosulfophthalein: Role of hydrophobicity, binding to plasma proteins and affinity for plasma membrane carrier protein".

Adriana M. Torres, Marco Stebel, Joaquín Rodriguez, Gian C. Lunazzi, Bruno Gazzin, and Claudio Tiribelli.

Biochemical Pharmacology 46:925-931 (1993). (pISSN 0006-2952).

12.-"Bilitranslocase and BSP/Bilirubin Binding Protein are both involved in the hepatic uptake of organic anions".

Adriana M. Torres, Gian C. Lunazzi, Wolfgang Stremmel, and Claudio Tiribelli.

Proceedings of National Academy of Sciences of the United States of America

(Proc Natl Acad Sci U S A.) 90:8136-8139 (1993). (pISSN 0027-8424).

13.-"Renal transport of glycine in glutathione depleted rats".

Adriana M. Torres, Elena J. Ochoa, Edgardo Guibert, Joaquín V. Rodríguez and M. Mónica Elías.

Biochemical Medicine and Metabolic Biology 50:159-168 (1993). (pISSN 0885-4505).

14.-"Role of BSP/Bilirubin Binding Protein and Bilitranslocase in glutathione uptake in rat basolateral liver plasma membrane vesicles".

Adriana M. Torres, Neil Kaplowitz, Claudio Tiribelli.

Biochemical and Biophysical Research Communications 200:1079-1085 (1994). (pISSN 0006-291x).

15.-"Competition of bile acids on the sulfobromophthalein uptake in basolateral rat liver plasma membrane vesicles".

Adriana M. Torres; Ana Isabel Galan, and Claudio Tiribelli.

Biochemical Pharmacology 48:1301-1304 (1994). (pISSN 0006-2952).

16.-"Gender diferencial liver plasma membrane affinities in tetrabromosulfonephthalein hepatic uptake".

Adriana M. Torres.

Biochemical Pharmacology 51:1117-1122 (1996). (pISSN 0006-2952).

17.-"ATP modulates sulfobromophthalein uptake in rat liver plasma membrane vesicles".

Adriana M. Torres.

Journal of Gastroenterology and Hepatology 11:1061-1071 (1996). (pISSN 0815-9319).

18.- “Mechanistic aspects in the hepatic uptake of long chain free fatty acids, bile acids and non-bile acids cholephilic organic anions” (*Review*).

Adriana M. Torres.

Current Topics in Pharmacology 3:137-144 (1997). Ed. by Bruni A. et.al., Research Trends (ISSN 0972-4559).

19.-“Molecular structure influence in the recognition of phthaleins by the electrogenic organic anion carrier at the sinusoidal plasma membrane in the liver”.

Adriana M. Torres.

Molecular and Cellular Biochemistry 169:185-189 (1997). (pISSN 0300-8177).

20.- “Differential enzymatic activities and cellular redox status of liver and kidney after ischemia in rats”.

Claudio G. Hofer, Georgina Montagna and **Adriana M. Torres.**

Hepatology Research 9:51-60 (1997). (pISSN 1386-6346).

21.-“Early manifestations of nephropathy in alloxan-treated rats”.

Verónica García, Guillermina Girardi, Elena Ochoa, **Adriana M. Torres** and M.Mónica Elías.

Renal Failure 20(4):551-564 (1998). (pISSN 0886-022X).

22.- “Impairment of cellular redox status and membrane proteins activities in kidneys from rats with ischemic acute renal failure”.

Georgina Montagna, Claudio, G. Hofer and **Adriana M. Torres.**

Biochimica et Biophysica Acta 1407(2):99-108 (1998). (pISSN 0006-3002).

23.- “Membrane enzymes activities and cellular redox status in rat liver after thoracic aortic ligation”.

Adriana M. Torres.

Current Topics in Pharmacology 5:177-181 (2000). Ed. by Bruni A. et.al., Research Trends (ISSN 0972-4559).

24.-“Competition of pravastatin and dibromosulfophthalein on the electroneutral and electrogenic tetrabromosulfophthalein uptake in rat liver”.

Adriana M. Torres.

Hepatology Research 19(3):336-346 (2001). (pISSN 1386-6346).

25.-“Characterization of the mechanisms involved in the gender differences in p-aminohippurate renal elimination in rats”.

Jorgelina A. Cerrutti, Nora B. Quaglia and **Adriana M. Torres.**

Canadian Journal of Physiology and Pharmacology 79:805-813 (2001). (pISSN 0008-4212).

26.-“Pharmacokinetics of organic anions in rats with arterial calcinosis”.

Nora Quaglia, Claudio Hofer, and **Adriana M. Torres.**

Clinical and Experimental Pharmacology and Physiology 29:48-52 (2002). (pISSN 0305-1870).

27.-“Effects of gender on the pharmacokinetics of drugs secreted by the renal organic anions transport systems in the rat”.

Jorgelina A. Cerrutti, Nora B. Quaglia, Anabel Brandoni and **Adriana M. Torres**

Pharmacological Research 45:107-112 (2002). (pISSN 1043-6618).

28.-"Sex differences in p-aminohippuric acid transport in rat kidney: Role of membrane fluidity and expression of OAT1".

Jorgelina A. Cerrutti, Anabel Brandoni, Nora Quaglia, and **Adriana M. Torres**.

Molecular and Cellular Biochemistry 233:175-179 (2002). (pISSN 0300-8177).

29.-"Fibronectin expression in proximal tubules from ischemic rat kidneys without reperfusion".

Petrini, Guillermo; Ochoa, Elena; Serra, Esteban; **Torres Adriana M.**; Elías, M.

Molecular and Cellular Biochemistry 241:21-27 (2002). (pISSN 0300-8177).

30.-"Role of BSP/Bilirubin Binding Protein on p-aminohippurate transport in rat kidney".

Adriana M. Torres*, Myriam Mac Laughlin, Nora B. Quaglia and Wolfgang Stremmel.

Molecular and Cellular Biochemistry 245:149-156 (2003). (pISSN 0300-8177).

31.-"Compensation increase in organic anions excretion in rats in rats with acute biliary obstruction. Role of the renal organic anion transporter 1 (OAT1)".

Anabel Brandoni, Nora B. Quaglia and **Adriana M. Torres**.

Pharmacology 68:57-63 (2003). (pISSN 0031-7012).

32.-"Early manifestations of nephropathy in rats with arterial calcinosis".

Nora B. Quaglia; Anabel Brandoni, Alejandro Ferri and **Adriana M. Torres**.

Renal Failure 25:355-366 (2003). (pISSN 0886-022X).

33.-"Gender difference in the pharmacodynamics of furosemide in rats".

Anabel Brandoni, Silvina R. Villar and **Adriana M. Torres**.

Pharmacology 70:107-112 (2004). (pISSN 0031-7012).

34.-"Renal elimination of organic anions in rats with bilateral ureteral obstruction".

Silvina R. Villar, Anabel Brandoni, Nora B. Quaglia and **Adriana M. Torres**.

Biochimica et Biophysica Acta 1688:204-209 (2004). (pISSN 0006-3002).

35.-"Haemodynamic and tubular renal dysfunction in rats with sustained arterial calcinosis".

Nora B. Quaglia, Anabel Brandoni, Silvina R. Villar and **Adriana M. Torres**.

Clinical and Experimental Pharmacology and Physiology 31:231-236 (2004). (pISSN 0305-1870).

36.-"Altered renal elimination of organic anions in rats with Chronic Renal Failure".

Torres, Adriana M., Mac Laughlin, Myriam; Muller Angélica; Brandoni Anabel; Anzai, Naohiko; and Endou, Hitoshi.

Biochimica et Biophysica Acta 1740:29-37 (2005). (pISSN 0006-3002).

37.- "Altered expression of rat renal cortical OAT1 and OAT3 in response to bilateral ureteral obstruction".

Silvina R. Villar, Anabel Brandoni, Naohiko Anzai, Hitoshi Endou and **Adriana M. Torres**.

Kidney International 68:2704-2714 (2005). (pISSN 0085-2538).

38.- "Expression of rat renal cortical OAT1 and OAT3 in response to acute biliary obstruction".

Anabel Brandoni, Silvina R. Villar, Juan C. Picena, Naohiko Anzai, Hitoshi Endou and **Adriana M. Torres**.

Hepatology 43:1092-1100 (2006). (pISSN 0270-9139).

39.- "Hepatic and extrahepatic synthesis and disposition of dinitrophenyl-S-glutathione in bile duct ligated rats".

S.S. Villanueva, M.L. Ruiz, C.J. Soroka, S-Y Cai, M.G. Luquita, **A.M. Torres**, E.J. Sanchez Pozzi, J.M. Pellegrino, J.L. Boyer, V.A. Catania, A. D. Mottino.

Drug Metabolism and Disposition 34:1301-1309 (2006). (ISSN 0090-9556).

40.- "Renal elimination of p-aminohippurate (PAH) in response to three days of biliary obstruction in the rat. The role of OAT1 and OAT3".

Anabel Brandoni, Naohiko Anzai, Yoshikatsu Kanai, Hitoshi Endou and **Adriana M. Torres**.

Biochimica Biophysica Acta 1762:673-682 (2006). (pISSN 0006-3002).

41.- "The fate of trans-caftaric acid administered into the rat stomach".

Andreja Vanzo, Roberto Cecotti, Urska Vrhovsek, **Adriana M. Torres**, Fulvio Mattivi and Sabina Passamonti.

Journal of Agricultural and Food Chemistry 55:1604-1611 (2007). (ISSN 0021-8561).

42.-"Elimination of organic anions in response to an early stage of renal ischemia-reperfusion in the rat. Role of basolateral plasma membrane transporters and cortical renal blood flow".

Gisela Di Giusto, Naohiko Anzai, Hitoshi Endou and **Adriana M. Torres**.

Pharmacology 81:127-136 (2008). (pISSN 0031-7012).

43.-"Uptake of grape anthocyanins into the rat kidney and the involvement of bilitranslocase".

Andreja Vanzo, Michela Terdoslavich, Anabel Brandoni, **Adriana M. Torres**, Urska Vrhovsek, Sabina Passamonti.

Molecular Nutrition & Food Research 52: 1106-1116 (2008) (pISSN 1613-4125).

44.- "Renal organic anion transporters: Knowledge from animal models" (**Review**).

Adriana M. Torres; Naohiko Anzai; Hitoshi Endou.

Current Topics in Pharmacology 12:45-50 (2008). Ed. by Bruni A. et.al. Research Trends (ISSN 0972-4559).

45.-"Time course of organic anion excretion in rats with bilateral ureteral obstruction. Role of organic anion transporters (Oat1 and Oat3)".

Silvina R. Villar, Anabel Brandoni, **Adriana M. Torres**.

Nephron Physiology 110:45-56 (2008) (ISSN 1660-8151).

46.-"Renal elimination of organic anions in extrahepatic cholestasis" (Editorial).

Adriana M. Torres.

World Journal of Gastroenterology 14:6616-6621(2008) (pISSN 1007-9327).

47.-“Oat5 and NaDC1 protein abundances in kidney and urine following renal ischemic reperfusion injury”

Gisela Di Giusto, Naohiko Anzai, Hitoshi Endou and **Adriana M. Torres**.

The Journal of Histochemistry and Cytochemistry 57:17-27 (2009) (ISSN 0022-1554).

48.-“Characterization of the mechanism involved in the increased renal elimination of bromosulfophthalein during cholestasis. Involvement of Oatp1”.

Anabel Brandoni and **Adriana M. Torres**.

The Journal of Histochemistry and Cytochemistry 57:449-456 (2009) (ISSN 0022-1554).

49.-“Expression and function of Oat1 and Oat3 in rat kidney exposed to mercuric chloride”.

Gisela Di Giusto, Naohiko Anzai, María L. Ruiz, Hitoshi Endou and **Adriana M. Torres**.

Archives of Toxicology 83:887-897 (2009) (ISSN 0340-5761).

50.-“Expression of kidney and liver bilitranslocase in response to acute biliary obstruction”.

Anabel Brandoni, Gisela Di Giusto, Raffaella Franca, Sabina Passamonti and **Adriana M. Torres**.

Nephron Physiology 114:35-40 (2010) (ISSN 1660-8151).

51.-“Expression and function of renal organic anion transporters (Oats) in health and disease” (*Review*).

Anabel Brandoni and **Adriana M. Torres**.

Current Topics in Pharmacology 14:1-9 (2010) Ed. by Bruni A. et.al. Research Trends (ISSN 0972-4559).

52.- “Organic anion transporter 5 renal expression and urinary excretion in rats exposed to mercuric chloride: a potential biomarker of mercury induced nephropathy”.

Gisela Di Giusto and **Adriana M. Torres**.

Archives of Toxicology 84:741-749 (2010) (ISSN 0340-5761).

53.-“Deletion of multispecific organic anion transporter (OAT1/SLC22A6) protects from mercury-induced nephrotoxicity”

Adriana M. Torres, Ankur V. Dnyanmote, Kevin T. Bush, Wei Wu, Sanjay Nigam.

J. Biol. Chem. 286: 26391-26395 (2011) (ISSN 0021-9258).

54.-“Renal expression of Oat1 and Oat3 in rats with vascular calcification”

Romina P. Bulacio, María Herminia Hazelhoff, **Adriana M. Torres**.

Pharmacology 90:66-77 (2012) (pISSN 0031-7012).

55.-“Gender related differences in kidney injury induced by mercury”

María Herminia Hazelhoff, Romina P. Bulacio, **Adriana M. Torres**.

Int. J. Mol. Sci. Special Issue: Molecular Mechanisms of Organ-Specific Toxicity 13: 10523-10536 (2012). (ISSN 1422-0067).

56.- “Expression and function of renal and hepatic organic anion transporters in extrahepatic cholestasis” (Review)

A. Brandoni, MH Hazelhoff, R. Bulacio, **Adriana M. Torres**

World J. Gastroenterol. 18:6387-6397 (2012) (pISSN 1007-9327).

57.- “Organic anion transporter 5 (Oat5) renal expression and urinary excretion in rats treated with cisplatin. A potential biomarker of cisplatin induced nephrotoxicity”.

Romina P. Bulacio, **Adriana M. Torres.**

Archives of Toxicology. 87: 1953-1962 (2013) (ISSN 0340-5761).

58.- “Organic anion transporter 5 (Oat5) renal expression and urinary excretion in rats with vascular calcification”.

María Herminia Hazelhoff, Romina P. Bulacio, **Adriana M. Torres.**

BioMed Research International (2013) (ISSN 2314-6133). Esta revista reemplaza a The Journal of Biomedicine and Biotechnology (ISSN 1110-7243).

Volumen 2013 (2013), Article ID 283429, 10 pages.

<http://dx.doi.org/101155/2013/283429>.

59.-“Protein expression of kidney and liver bilitranslocase in rats exposed to mercuric chloride-a potential tissular biomarker of toxicity”.

M. Trebucovich, M. H. Hazelhoff, A. Chevalier, S. Passamonti, A. Brandoni, **Adriana M. Torres.**

Toxicology Letters 225:305-310 (2014) (ISSN 0378-4274).

60.-“Time course of organic anion transporter 5 (Oat5) urinary excretion in rats treated with cisplatin: a novel urinary biomarker for early detection of drug-induced nephrotoxicity”.

Romina P. Bulacio, **Adriana M. Torres.**

Archives of Toxicology 89:1359-1369 (2015) (ISSN 0340-5761).

61.-“Altered renal expression of relevant clinical drug transporters in different models of acute uremia in rats. Role of urea levels.”

Anabel Brandoni, **Adriana M. Torres.**

Cellular Physiology and Biochemistry. 36:907-916 (2015) (ISSN 1015-8987).

62.-“Amelioration of mercury nephrotoxicity after pharmacological manipulation of organic anion transporter 1 (Oat1) and multidrug associated resistance protein 2 (Mrp2) with furosemide”

María H. Hazelhoff, Mara S. Trebucovich, Tania Stoyanoff, Alberto Chevalier, **Adriana M. Torres.**

Toxicology Research. 4: 1324-1332 (2015) (p ISSN 2045-452X, eISSN 2045-4538).

63.-“Expression of rat renal Oat5 and NaDC1 in response to acute biliary obstruction”.

Anabel Brandoni, **Adriana M. Torres.**

World Journal of Gastroenterology 21:8817-8825 (2015) (pISSN 1007-9327).

64.- “Organic anion transporter 5 urinary excretion (Oat5u) is an early specific biomarker of kidney injury. Evaluation of exosomal Oat5u after N-acetylcysteine prevention of cisplatin induced nephrotoxicity”.

Romina P. Bulacio, Motoshi Ouchi, Naohiko Anzai, **Adriana M. Torres**.
Chemical Research in Toxicology 28:1595-1602 (2015) (ISSN 1520-5010).

65.- “The urinary excretion of an organic anion transporter as an early biomarker of methotrexate induced nephrotoxicity”

María J. Severin, Mara S. Trebucovich, Patricia Buszniesz, Anabel Brandoni, **Adriana M. Torres**.

Toxicology Research 5:530-538 (2016) (p ISSN 2045-452X, eISSN 2045-4538)

66.-“Tumor biology of non-metastatic stages of clear cell renal cell carcinoma; over expression of stearoyl desaturase-1, epo/epo-r system and hypoxia-related proteins”

Tania R. Stoyanoff , Juan P. Rodríguez, Juan S. Todaro, Joaquín D. Espada, Juan P. Melana Colavita, Nora C. Brandan, **Adriana M. Torres**, María V. Aguirre

Tumor Biology 37:13581-13593 (2016) (pISSN 1010-4283, eISSN 1423-0380).

67.- “Impact of the induced organic anion transporter 1 (Oat1) renal expression by furosemide on the pharmacokinetics of organic anions”

María J. Severin, María H. Hazelhoff, Romina P. Bulacio, María E. Mamprin, Anabel Brandoni, **Adriana M. Torres**.

Nephrology (Carlton) 22:642-648 (2017). (pISSN 1320-5358, eISSN 1440-1798).

68.- “Renal expression and urinary excretion of Na-K-2Cl cotransporter in obstructive nephropathy”

Anabel Brandoni, **Adriana M. Torres**.

BioMed Research International Volumen 2017 (2017) Article ID 7171928, 9 pages.
[http://dx.doi.org/ 10.1155/2017/7171928](http://dx.doi.org/10.1155/2017/7171928). (pISSN 2314-6133, eISSN 2314-6141).

69.- “Pharmacokinetics of the antimicrobial drug sulfanilamide is altered in a preclinical model of vascular calcification”

Anabel Brandoni, **Adriana M. Torres**.

Clinical and Experimental Pharmacology and Physiology 44 (S1) 99-106 (2017).
(pISSN 0305-1870).

70.- “Gender differences in mercury-induced hepatotoxicity: Potential mechanisms”

María H. Hazelhoff, **Adriana M. Torres**.

Chemosphere 202:330-338 (2018) (pISSN 0045-6535).

71.- “Renal expression of organic anion transporters is modified after mercuric chloride exposure: Gender-related differences”.

María H. Hazelhoff, Romina P. Bulacio, Alberto A. Chevalier, **Adriana M. Torres**.

Toxicology Letters 295:390-396 (2018) (ISSN 0378-4274).

72.- “Erythropoietin attenuates lps-induced microvascular damage in a murine model of septic acute kidney injury”.

Tania R. Stoyanoff , Juan P. Rodríguez, Juan S. Todaro, Juan P. Melana Colavita, **Adriana M. Torres**, María V. Aguirre.

Biomedicine & Pharmacotherapy 107:1046-1055 (2018) (ISSN 0753-3322).

73.- “Renal expression and urinary excretion of Na⁺/Dicarboxylate Cotransporter 1 (NaDC1) in obstructive nephropathy. A candidate biomarker for this pathology”
Romina V. Campagno, María J. Severin, Evangelina C. Nosetto, Anabel Brandoni, **Adriana M. Torres.**

Pflügers Archiv - European Journal of Physiology 470:1777-1786 (2018) (ISSN 0031-6768).

74.- “Novel finding of caveolin-2 in apical membranes of proximal tubule and first detection of caveolin-2 in urine: A promising biomarker of renal disease.”

Romina P. Bulacio, Evangelina C. Nosetto, Anabel Brandoni, **Adriana M. Torres.**

Journal of Cellular Biochemistry 120:4966-4974 (2019) (ISSN 1097-4644).

75.- “Time course effects of methotrexate on renal handling of water and electrolytes in rats. role of aquaporin-2 and Na-K-2Cl-cotransporter.”

María J. Severin, **Adriana M. Torres.**

Toxicology Letters 311:27-36 (2019) (ISSN 0378-4274).

76.- “Time evolution of methotrexate-induced kidney injury. a comparative study between different biomarkers of renal damage in rats”

María J. Severin, Romina V. Campagno, Anabel Brandoni, **Adriana M. Torres.**

Clinical and Experimental Pharmacology and Physiology 828-836 (2019) (pISSN 0305-1870).

77.- “Caveolin-2 in urine as a novel biomarker of renal recovery after cisplatin induced nephrotoxicity in rats”

Romina P. Bulacio, **Adriana M. Torres.**

Toxicology Letters 313:169-177 (2019) (ISSN 0378-4274).

78.- “Distribution of the organic anion transporters Oat1 and Oat3 between renal membrane microdomains in obstructive jaundice”

Evangelina C. Nosetto, Romina V. Campagno, **Adriana M. Torres,** Anabel Brandoni.

Pflügers Archiv - European Journal of Physiology 472:711-719 (2020) (ISSN 0031-6768).

79.- “Utility of urinary Organic Anion Transporter 5 as an early biomarker of obstructive nephropathy”

Romina V. Campagno, Evangelina C. Nosetto, Anabel Brandoni, **Adriana M. Torres.**

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80.- “Effects of erythropoietin on mercury-induced nephrotoxicity: Role of mercury transporters”

María H. Hazelhoff, **Adriana M. Torres.**

Human and Experimental Toxicology (2020) In Press (ISSN 0960-3271)

81.- “Erythropoietin alters the pharmacokinetics of organic anions mainly eliminated by the kidney in rats”

María J. Severin, María H. Hazelhoff, Romina P. Bulacio, María E. Mamprin, Anabel Brandoni, **Adriana M. Torres.**

Canadian Journal of Physiology and Pharmacology (2020) In Press (ISSN 0008-4212)

Book's Chapters

1.- “Hepatic uptake of organic anions: different mechanisms and putative membrane carrier proteins”.

Adriana M. Torres, Claudio Tiribelli.

Liver Pathophysiology. Ed by Dianzani, M. U. and Gentilini, P. Elsevier Science B.V. Chapter 6, pp.61-69, (1994).

2.-“Extrahepatic cholestasis model”.

Anabel Brandoni, **Adriana M. Torres**.

Chapter 27, pp 139-141.

Experimental Surgical Models in the Laboratory Rat (2009).

Editorial: CRC Press. Taylor and Francis Group. Boca Raton, FL. USA.

Editores: A. Rigalli, V. Di Loreto. (ISBN 9781420093261).

3.-“Acute renal failure models”.

Gisela Di Giusto, **Adriana M. Torres**.

Chapter 34, pp 177-182.

Experimental Surgical Models in the Laboratory Rat (2009).

Editorial: CRC Press. Taylor and Francis Group. Boca Raton, FL. USA.

Editores: A. Rigalli, V. Di Loreto. (ISBN 9781420093261).

4.- “Renal blood flow measurement using fluorescent microspheres”.

Gisela Di Giusto, **Adriana M. Torres**, Alfredo Rigalli.

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Editorial: CRC Press. Taylor and Francis Group. Boca Raton, FL. USA.

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5.-“Transport studies in plasma membrane vesicles isolated from renal cortex”.

Gisela Di Giusto, **Adriana M. Torres**.

Chapter 36, pp 189-194.

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Editorial: CRC Press. Taylor and Francis Group. Boca Raton, FL. USA.

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6.- “Experimental arteriosclerosis”.

Anabel Brandoni, **Adriana M. Torres**.

Chapter 39, pp 205-207.

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Editorial: CRC Press. Taylor and Francis Group. Boca Raton, FL. USA.

Editores: A. Rigalli, V. Di Loreto. (ISBN 9781420093261).

7.-“Expression and function of renal organic anion transporters in cholestasis”

Anabel Brandoni, **Adriana M. Torres**

Cholestasis (2012) Chapter 3, pp 33-50

Editorial: Intech, Open Access Publishers, Rijeka, Croatia

Editores: V. Tripodi, S. Lucaglioli (ISBN 978-953-51-0043-0)

8.- “Effects of acute mercury exposition on expression and function of organic anion transporters in kidney”

Adriana M. Torres

Mercury: Sources, Applications and Health Impacts Chapter 5 pp99-108 (2013)

Editorial Nova Science Publishers, Inc., Hauppauge, NY, USA

Editores: K-H Kim, R. Brown (ISBN 978-1-62257-724-8)

9.- “Biological synthesis, pharmacokinetic, and toxicity of different metal nanoparticles”

Raúl A. Trbojevich, **Adriana M. Torres**

Metal Nanoparticles in Pharma Chapter 20, pp451-468 (2017)

Springer International Publishing AG, Basel, Switzerland.

Editores: M. Rai, R. Shegokar

(eBook ISBN 978-3-319-63790-7). (Hardcover ISBN 978-3-319-63789-1)

10.- “Exosomes and the kidney: composition, isolation, functions, and diagnostic and therapeutic applications” Romina P. Bulacio, **Adriana M. Torres**

Exosomes and Microvesicles: Role in Disease and Clinical Applications (2019) *En Prensa*.

Nova Science Publishers, Inc., New York, USA-Editor: T. Kagiya

Published Abstracts

Total Number : 198

Communications presented in National and Foreign Congresses:

Total Number : 223

Conferences and Seminars

*“Mechanisms in regulation of hepatic uptake of organic anions”

International Bilirubin Workshop; April 1992, Trieste, Italy.

*“Influence of nephropathies on renal transport mechanisms of organic anions in rats”

Department of Pharmacology and Toxicology. Kyorin University School of Medicine, Tokyo, Japan. July 12th 2004.

*“Altered cortical renal expression of OAT1 and OAT3 in rats with bilateral ureteral

obstruction” Zentrum Physiologie und Pathophysiologie. Goettingen, Germany. August 25th 2005.

*“Renal transport mechanisms of organic anions in rats with pathologies that affect renal function”

Department of Gastroenterology. Hospital University. Heidelberg, Germany. September 20th 2005.

*“Renal transport of organic anions in renal and hepatic diseases”

Dipartimento di Biochimica, Biofisica e Chimica delle Macromolecole, Università di Trieste, Italia. June 27th 2006.

*“Técnicas de micropunción renal”

Círculo Médico de la Ciudad de Rosario.
12 de septiembre, 2006.

* “Determinantes del filtrado glomerular. La hemodinamia al desnudo”

XV Congreso Argentino de Nefrología, Rosario, 19 de septiembre, 2007.

* “Aquaporinas en el 2007. De la fisiología a la terapéutica.”

XV Congreso Argentino de Nefrología, Rosario, 20 de septiembre, 2007.

* “Expression and Function of Organic Anion Transporters (Oats) in Disease” **Torres Adriana M.** School of Medicine, University of California, San Diego, Estados Unidos, 3 de noviembre, 2009.

*”Efecto del mercurio sobre la expresión renal y hepática de transportadores de aniones orgánicos. Implicancias farmacológicas” **Torres Adriana M.** I Encuentro de Cátedras de Farmacología de Universidades de Gestión Pública. Rosario, 15 de septiembre 2011.

*”Efecto de la exposición aguda y crónica a mercurio sobre la expresión, función y regulación de proteínas transportadoras de aniones orgánicos en hígado y riñón. Posibles implicancias fisiopatológicas, toxicológicas y farmacológicas”. **Torres Adriana M.** XVII Congreso Argentino de Toxicología, Tandil, 29 de septiembre 2011. Resumen publicado en *Acta Toxicol. Argent.* 19 (Suplem.) 4, 2011.

*Nueva farmacología y combinaciones en el tratamiento de la hipertensión arterial” **Torres Adriana M.** Conferencia Satélite a la XLVI Reunión Anual de la Sociedad Argentina de Farmacología Experimental, dictada en el Colegio de Farmacéuticos de Mendoza, 30 de octubre 2012.

*-“Introducción al Uso Racional del Medicamento” **Torres Adriana M.** Jornadas Internas de Uso Racional del Medicamento, Area Farmacología, Facultad de Ciencias Bioquímicas y Farmacéuticas, Universidad Nacional de Rosario, 15 de marzo de 2013.

*-“Farmacoterapéutica de la Hipertensión Arterial” **Torres Adriana M.** Organizada por la Secretaría de Enseñanza del Centro de Estudiantes de la Facultad de Ciencias Bioquímicas y Farmacéuticas, Universidad Nacional de Rosario, 25 de septiembre de 2013.

*-“Expresión, función y regulación de transportadores de fármacos. Implicancias farmacoterapéuticas y diagnósticas”. **Torres Adriana M.** Conferencia Area 10. Reunión Internacional de Ciencias Farmacéuticas, RICIFA 2014, Córdoba, 19 de septiembre de 2014.

*-“Excreción urinaria del transportador de aniones orgánicos 5 (Oat5): novedoso biomarcador temprano de nefrotoxicidad” **Torres Adriana M.**

Simposio: “Desarrollo de Biomarcadores en Toxicología: un desafío frente a la exposición a mezclas, dosis bajas y efectos múltiples”

71º Congreso Argentino de Bioquímica, Buenos Aires, 12 de agosto de 2015.

Resumen publicado en *“Bioquímica y Patología Clínica”* (Suplem) Agosto 2015,43.

*.-“Nuevos Biomarcadores de nefrotoxicidad inducida por cisplatino y por metotrexato” **Torres Adriana M.**

Mesa Redonda: Toxico-Farmacología

IV Congreso Iberoamericano de Salud Ambiental para el Desarrollo Sustentable, XX Congreso Argentino de Toxicología, XXXV Jornadas Argentinas Interdisciplinarias de Toxicología, Santa Fe, septiembre 2017.

Resumen publicado en *Acta Toxicol. Argent.* 25 (Supl.): 106-107 (2017). ISSN 0327-9286.

* -“New biomarkers of acute kidney injury”

Torres, Adriana M.

Simposio: “Avances en Fisiología y Fisiopatología Renal”

LXIII Reunión Anual de la Sociedad Argentina de Investigación Clínica (SAIC), LXVI Reunión Anual de la Sociedad Argentina de Inmunología (SAI), Reunión Anual de la Sociedad Argentina de Fisiología (SAFIS), Mar del Plata, noviembre 2018.

Resumen publicado en *Medicina* 78 (Supl III): 28-29 (2018).

*”Nuevos biomarcadores de lesión renal aguda”

Torres Adriana M.

XVIII Congreso Latinoamericano de Nefrología e Hipertensión (SLANH 2019), Lima, Perú, 13 de septiembre de 2019.

Human Resources Formation:

Doctoral Thesis Directions

*Med. Jorgelina Cerrutti. 1997-2001

*Bioq. Nora Quaglia. 1999-2003.

*Bioq. Anabel Brandoni. 2001-2006

*Bioq. Silvina Villar 2002-2006

*Lic. Gisela Di Giusto 2006-2010

*Lic. Romina P. Bulacio 2011-2015

*Lic. María H. Hazelhoff 2010-2015

*Lic. María J. Severín 2014-2019

*Lic. Romina V. Campagno 2014-2020

*Lic. Evangelina Nosetto 2016-now

Fellow's Directions:

Bioq. Nora Quaglia- "Carrillo-Oñativia Fellow" National Health Ministry 2001.

Bioq. Anabel Brandoni-"Doctoral Fellow" CONICET (National Council Research), 2002-2007. “Post Doctoral Fellow” CONICET 2007-2009.

Bioq. Silvina Villar-"Doctoral Fellow" ANPCyT (National Agency for the promotion of the Science and Technique) 2002-2004. -"Doctoral Fellow" CONICET 2005-2007.

“Post Doctoral Fellow” CONICET 2007-2009.

Lic. Gisela Di Giusto--"Doctoral Fellow" ANPCyT 2007-2010.

Lic. M.Herminia Hazelhoff---"Doctoral Fellow" ANPCyT 2010-2013. -"Doctoral Fellow" CONICET 2013-2015.“Post Doctoral Fellow” CONICET 2016-2018.

Lic. Romina P. Bulacio---“Doctoral Fellow” CONICET 2011-2016. .“Post Doctoral Fellow” CONICET 2016-2018.

Lic. M. Julia Severin-----"Doctoral Fellow" ANPCyT 2014-2017. -"Doctoral Fellow" CONICET 2017-2019

Lic.Romina Campagno-----“Doctoral Fellow” CONICET 2015-2020. Post Doctoral Fellow” CONICET 2020-2022.

Lic. Evangelina Nosetto-----“Doctoral Fellow” CONICET 2016-2021.

Reviewers Actuation

***Reviewer of Research Projects:**

- Israel Science Foundation (ISF)
- National Council of Science and Technology (CONACyT), Paraguay.
- University of Republic, Uruguay
- National University of Rosario, Argentina.
- National University of Buenos Aires, Argentina.
- National University of Litoral, Argentina.
- National Agency for the promotion of the Science and Technique (ANPCyT), Argentina.
- National Council of Scientific and Technical Research (CONICET), Argentina.

***Reviewer of Doctoral Thesis**

- National University of Rosario
- National University of Litoral
- National University of Nordest
- National University of San Luis
- National University of Buenos Aires

***Reviewer of Scientific Journals**

- Journal of Pharmacology and Experimental Therapeutics.*
- Pharmacogenetics*
- Biochimica et Biophysica Acta (BBA)*
- Biochemical Pharmacology*
- American Journal of Physiology.*
- Journal of Pharmacy & Pharmaceutical Sciences.*
- Journal of Histochemistry and Cytochemistry*
- Journal of American Society of Nephrology*
- Kidney International*
- Nephrology Dialysis Transplantation*
- Current Drug Delivery*
- Histology and Histopathology*
- Journal of American Society of Nephrology*
- Pharmacological Research*
- Plos One*
- Member of the Editorial Board of *World Journal of Gastroenterology* 2007-2009, 2010-2013).

IX.-Member of Scientific Societies

- *Argentine Society of Clinical Research (Member of Directive Commission during 1999)
- *Argentine Society of Toxicology
- *Argentine Society of Physiological Sciences (Member of Directive Commission 2003-2006)
- *Argentine Society of Experimental Pharmacology. (Member of Directive Commission 2011-2013; 2014-2017)

X. Grants for Research Projects

- *Third World Academy of Sciences (TWAS, Trieste, Italy,1994)

*National University of Rosario (1993-94, 1995, 1996-97, 1997-98, 2002-04, 2005-07, 2008-2011, 2012-2015, 2016-2019)

*Fundación Antorchas (1993, 1995, 1996, 1997, 1999)

*National Ministry of Health (2001).

*National Agency for the Promotion of Science and Technics (ANPCyT) (PICT 06160, Years: 2000-2004; PICT 020201, Years: 2006-2009, PICT00966 Years: 2009-2011, PICT0225: 2013-2015; PICT0936 Years: 2017-2020).

*National Council of Scientific and Technical Research (CONICET) (PEI1997, PIP2005-2006, PIP2009-2011, PIP2012-2014, PIP2015-2017)