

NEPHROLOGY GROUP



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MAIN LINES OF RESEARCH

Fundació Puigvert's Nephrology Research Group has been part of the IIB since its very beginning. The group carries out translational research within the field of renal diseases along different lines from hypertension, hereditary diseases, glomerular diseases and renal fibrosis, to transplants and dialysis.

Those different lines are analysed in detail below:

Dra. Torra is the head researcher of the hereditary diseases line – she and Dra. Ars have leaded many research projects on these diseases, and both have supervised several doctoral theses. The hereditary renal diseases team is currently analysing phenotype variability of those diseases, both in its genomic and its clinical dimension. Dra. Torra coordinates both the Catalan and the Spanish hereditary renal diseases teams, and is a member of the homonymous European board of the EDTA (European Dialysis and Transplant Association).

Dra. Ars heads the molecular genetics laboratory; she has optimised the Next generation sequencing tools for hereditary renal diseases, in collaboration with Dra. Gemma Bullich. Dra. Ars coordinates the Sant Pau IIB's Fundació Puigvert's On-line Biobank node belonging to the National Biobanks Platform. She is also the person responsible for organising an European Molecular Quality Network (EMQN) outline for quality control of the genetic diagnoses of ADPKD by European laboratories. Currently she is leading a research project for applying this outline to kidney and urinary tract congenital abnormalities.

Jointly with Dra. Díaz, Dr. Ballarín leads a series of clinical trials, both national and international, on glomerular and systemic diseases affecting the kidneys. They also participate in registries at a Catalan, Spanish and European level.

Dra. Díaz leads the studies on renal inflammation and fibrosis. Renal grafts from cadaveric donors are an apt model for her study due to their less-good prognosis and to a high probability of inflammation and ensuing fibrosis as compared to living donor grafts. Dra. Díaz and Dra. Guillén have identified the activation of purinoma elements, both in cell cultures and in grafts from cadáver donors. This activation participates in inflammation and fibrosis, triggered by the phenotype change of macrophages into antiinflammatory and pro-fibrotic, and interacting with other pro-fibrotic classical pathways. This new role of the purinergic pathways could be the key for the detection of new markers and new therapeutic targets associated with renal graft dysfunction after transplant.

Dra. Fernández-Llama is participating in the development of a prototype of a multiplex system for flow cytometry focused on a new multi-parametric etio-pathogenic diagnosis of acute renal damage. As an expert in hypertension, she participates in a collaborative trial for evaluating 24-hour central blood pressure, its circadian rhythms and its relationship with organic damage.

Dr. Bover is also a member of the EDTA work force board on bone metabolism, this being his primary research subject.

Dr. Díaz leads the dialysis research line. Currently the two major research lines are concerned with the appropriateness of peritoneal dialysis, and the investigation for biomarkers of the acute renal failure.

Dra. Coll, who belongs in the dialysis team, heads the research of genomic damage in patients on renal replacement therapy, either transplant or dialysis. She analyses the differences of oxidative stress in transplanted vs. dialysis patients. She also analyses the effect of different antioxidants on genomic damage of dialysis patients.

The transplant team, led by Dr. Guirado, either participates or heads over 15 studies, amongst them clinical trials with drugs against kidney rejection or for treating associated viral infections. His active participation and his leadership in the investigation of biochemical, serologic and genomic biomarkers of both rejection and viral infections associated with renal transplant, are outstanding.

Ms. Luz San Miguel and Ms. Judith Ballart are the coordinators of clinical studies and trials. Their work is essential and of the utmost importance for carrying out the high number of clinical trials performed by the group.

SCIENTIFIC CHALLENGES

Maintain the level of national and international publication.

Continue with both clinical and basic research in all the previously described areas.

Participate in the elaboration of clinical nephrology guidelines.

Continue with active collection of research samples from CKD and transplant patients.

Maintain participation in national working groups and increase international cooperation.

Engage in new pharmaceutical clinical studies, including clinical trials.

COLLABORATIONS WITH IIB-SANT PAU GROUPS

Active collaborations in basic and clinical research projects:

- Inflammatory Diseases Group: renal fibrosis.
- Anaesthesiology Group (in collaboration with the Catalan ANESCARDIOCAT Group): risk of major adverse cardiovascular and cerebrovascular events in non-cardiac surgery associated with the preoperative estimated glomerular filtration rate.
- Paediatrics Group: nephrotic syndrome evolution, Ig A nephropathy and inherited kidney diseases.
- Andrology Group: infertility
- Urology Group: genetic predisposition to prostate cancer and transplant.
- Gynecology: High risk pregnancies, prenatal diagnosis, preimplantation diagnosis.
- Multidisciplinary teams for inherited kidney diseases: collaboration with most specialities from Sant Pau Hospital for different inherited kidney diseases (data bases, articles, protocols...).

Platforms:

- Biobank platform

EXTERNAL COLLABORATIONS

National academic collaborations

- Department of Biochemistry and Molecular Biology, Universitat de Barcelona, Institute of Biomedicine and Oncology Programme, National Biomedical Research Institute of Liver and Gastrointestinal Diseases (CIBER EHD): renal fibrosis.
- Laboratory of Proteomics CSIC/Universitat Autònoma de Barcelona: diabetic nephropathy.
- Mutagenesis Department of Universitat Autònoma de Barcelona: renal impairment in chronic kidney disease.

- Genomic Regulation Center (CRG): inherited kidney diseases.
- Universidad de Salamanca: acute kidney injury.
- Universitat de Lleida: chronic kidney disease.
- National Scientific Societies (such as Sociedad Española de Nefrología) and investigators of other centres: basic and clinical studies (including public grants, clinical trials, observational studies...) promoted by them.

International academic collaborations

- Biochemistry and Microbiology Institute UACH (Chile): renal fibrosis and diabetic nephropathy.
- Mayo Clinic (Rochester, USA): Autosomal Dominant Polycystic Kidney Disease (ADPKD).
- Hospital Tenon (Paris, France): Nephrotic syndrome.
- EURenOmics Plataform: membranous nephropathy and nephrotic syndrome.
- Toronto General Hospital (Canada): molecular genetics of idiopathic nephrotic syndrome.
- University of Melbourne (Australia): Alport syndrome.
- University Medicine Goettingen (Germany): Alport syndrome.
- EDTA (multinational, Europe): inherited kidney diseases and chronic kidney disease-mineral and bone disorders.
- Addenbrooke's Hospital, Cambridge University Hospitals NHS (United Kingdom): vasculitis.
- EUVAS Group (multinational collaborative Group): vasculitis.

Private national and international collaborations

- Participation in clinical studies including clinical trials and postauthorisation studies promoted by national and international pharmaceutical companies.
- Research Joint-Venture with VU Medisch Centrum (Amsterdam, The Netherlands); Medizinische Klinik I (Aachen, Germany) and San Paolo Hospital (Milan, Italy) sponsored by Abbvie Co on effects of vitamina D derivatives in CKD-MBD.

Other collaborations

- Patient organisations: inherited diseases (AIRG), lupus (ACLECA) and chronic kidney disease (ALCER).

ACTIVE GRANTS

- “Nefropatias familiares no filiadas: genes implicados en su causa y su variabilidad fenotípica”. Dra R Torra. Exp: PI15/01824. Instituto de Salud Carlos III (FEDER cofunded). Duration 2016-2018. 115.500 €
- “Estudio genómico de nefropatias de inicio temprano”. Dra E Ars. Exp: PI16/01998. Instituto de Salud Carlos III (FEDER cofunded). Duration 2017-2019.107.500€
- “Estudi multicèntric, aleatoritzat per avaluar l’eficàcia de la individualització del risc immunològic basat en biomarcadors selectius (disparitat de pols HLA i ELISPOT IFN- γ), per optimitzar el tractament immunosupressor en pacients trasplantats renals de donant viu (BIOIMMUN)”. Dr LL Guirado. Exp: SLT002/16/00089. Generalitat de Catalunya (Convocatòria PERIS 2016. Programes de recerca orientats). Duration: 2017-2019. 30.589 €
- Red de Investigación Renal. Dr J Ballarín. Exp: RD16/0009/0019 Instituto de Salud Carlos III (FEDER cofunded). Duration: 2017-2020. 121.379 €
- Red de Investigación Renal. Ballarin J. Exp: RD12/0021/0033 Instituto de Salud Carlos III (FEDER cofunded). Duration 2013-2017. 82.000 €
- Grup d’Investigació en Nefrologia. Grup consolidat de Recerca. Dr J. Ballarín. Exp: 2017SGR676. AGAUR. Duration: 2017-2019.

SCIENTIFIC PRODUCTION

TIF: 96,6760 MIF: 3,5806

- Arroyo D., Betriu A., Valls J., Gorriz J.L., Pallares V., Abajo M., Gracia M., Valdivielso J.M., Fernandez E., Aladren Regidor M.J., Almirall J., Ponz E., Arteaga Coloma J., Bajo Rubio M.A., Belart Rodriguez M., Gascon Marino A., Bover Sanjuan J., Bronsoms Artero J., Cabezuelo Romero J.B., Muray Cases S., Calvino Varela J., Caro Acevedo P., Carreras Bassa J., Cases Amenos A., Masso Jimenez E., Castilla Perez J., Cigarran Guldris S., Lopez Prieto S., Comas Mongay L., Comerma I., Compte Jove M.T., Cuberes Izquierdo M., De Alvaro F., Hevia Ojanguren C., De Arriba De La Fuente G., Del Pino y Pino M.D., Diaz-Tejeiro Izquierdo R., Dotori M., Duarte V., Estupinan Torres S., Fernandez Reyes M.J., Fernandez Rodriguez M.L., Fernandez G., Galan Serrano A., Garcia Canton C., Garcia Herrera A.L., Garcia Mena M., Gil Sacaluga L., Aguilar M., Gorriz J.L., Huarte Loza E., Lerma J.L., Liebana Canada A., Marin Alvarez J.P., Martin Alemany N., Martin Garcia J., Martinez Castelao A., Martinez Villaescusa M., Martinez I., Moina Eguren I., Moreno Los Huertos S., Mouzo Mirco R., Munar Vila A., Munoz Diaz A.B., Navarro Gonzalez J.F., Nieto J., Carreno A., Novoa Fernandez E., Ortiz A., Fernandez B., Paraiso V., Perez Fontan M., Peris Domingo A., Pinera Haces C., Prados Garrido M.D., Prieto Velasco M., Puig Mari C., Rivera Gorrin M., Rubio E., Ruiz P., Salgueira Lazo M., Martinez Puerto A.I., Sanchez Tomero J.A., Sanchez J.E., Sans Lorman R., Saracho R., Sarrias M., Prat O., Soler M.J., Barrios C., Sousa F., Toran D., Tornero Molina F., Uson Carrasco J.J., Valera Cortes I., Vilapriño Del Perugia M.M., Virto Ruiz R.C., Factors influencing pathological ankle-brachial index values along the chronic kidney disease spectrum: The NEFRONA study (2017) NEPHROL DIAL TRANSPL, 32 (3), 513-520, IF:4.4700
- Bover J., Bailone L., Lopez-Baez V., Benito S., Ciceri P., Galassi A., Cozzolino M., steoporosis, bone mineral density and CKD– MBD: treatment considerations (2017) J NEPHROL, 30 (5), 77-687, IF:2.1530

- Bullich G., Vargas I., Trujillano D., Mendizabal S., Pinero-Fernandez J.A., Fraga G., Garcia-Solano J., Ballarin J., Estivill X., Torra R., Ars E., Contribution of the TTC21B gene to glomerular and cystic kidney diseases (2017) NEPHROL DIAL TRANSPL, 32 (1), 151-156, IF:4.4700
- Collado S., Coll E., Nicolau C., Azqueta M., Pons M., Cruzado J.M., De La Torre B., Deulofeu R., Mojal S., Pascual J., Cases A., Serum osteoprotegerin in prevalent hemodialysis patients: Associations with mortality, atherosclerosis and cardiac function (2017) BMC NEPHROL, 18 (1), -, IF:2.2890
- Corredor Z., Rodriguez-Ribera L., Coll E., Silva I., Diaz J.M., Ballarin J., Marcos R., Pastor S., DNA damage in kidney transplant patients. Role of organ origin (2017) ENVIRON MOL MUTAGEN, 58 (9), 712-718, IF:3.5750
- DaSilva I., Huerta A., Quintana L., Redondo B., Iglesias E., Draibe J., Praga M., Ballarin J., Diaz-Encarnacion M., Rituximab for Steroid-Dependent or Frequently Relapsing Idiopathic Nephrotic Syndrome in Adults: A Retrospective, Multicenter Study in Spain (2017) BIODRUGS, 31 (3), 239-249, IF:2.8350
- David C., Bover J., Voiculescu C., Peride I., Petcu L.C., Niculae A., Covic A., Checherita I.A., Coronary risk score for mineral bone disease in chronic non-diabetic hemodialysis patients: results from a prospective pilot study (2017) INT UROL NEPHROL, 49 (4), 689-700, IF:1.5640
- De la Sierra A., Pareja J., Fernandez-Llama P., Armario P., Yun S., Acosta E., Calero F., Vazquez S., Blanch P., Sierra C., Oliveras A., Twenty-four-hour central blood pressure is not better associated with hypertensive target organ damage than 24-h peripheral blood pressure (2017) J HYPERTENS, 35 (10), 2000-2005, IF:4.0850
- Dominguez-Gil B., Coll E., Elizalde J., Herrero J.E., Pont T., Quindos B., Marcelo B., Bodi M.A., Martinez A., Nebra A., Guerrero F., Mancino J.M., Galan J., Lebron M., Minambres E., Matesanz R., Expanding the Donor Pool Through Intensive Care to Facilitate Organ Donation: Results of a Spanish Multicenter Study (2017) TRANSPLANTATION, 101 (8), e265-e272, IF:3.6780
- Fernandez-Llama P., Pareja J., Yun S., Vazquez S., Oliveras A., Armario P., Blanch P., Calero F., Sierra C., de la Sierra A., Cuff- Based Oscillometric Central and Brachial Blood Pressures Obtained Through ABPM are Similarly Associated with Renal Organ Damage in Arterial Hypertension (2017) KIDNEY BLOOD PRESS R, 1068-1077, IF:3.1040
- Furlano M., Barreiro Y., Marti T., Facundo C., Ruiz-Garcia C., DaSilva I., Ayasreh N., Cabrera-Lopez C., Ballarin J., Ars E., Torra R., Renal angiomyolipoma bleeding in a patient with TSC2/PKD1 contiguous gene syndrome after 17 years of renal replacement therapy Sangrado de angiomiolipoma renal en paciente con síndrome de genes contiguos (TSC2/PKD1) tras 17 años de tratamiento renal sustitutivo (2017) NEFROLOGIA, 37 (1), 87-92, IF:1.1830
- Furlano M., Barreiro Y., Marti T., Facundo C., Ruiz-Garcia C., DaSilva I., Ayasreh N., Cabrera-Lopez C., Ballarin J., Ars E., Torra R., Renal angiomyolipoma bleeding in a patient with TSC2/PKD1 contiguous gene syndrome after 17 years of renal replacement therapy (2017) NEFROLOGIA, -, IF:1.1830
- Gross O., Kashtan C.E., Rheault M.N., Flinter F., Savige J., Miner J.H., Torra R., Ars E., Deltas C., Savva I., Perin L., Renieri A., Ariani F., Mari F., Baigent C., Judge P., Knebelman B., Heidet L., Lagas S., Blatt D., Ding J., Zhang Y., Gale D.P., Prunotto M.,

Xue Y., Schachter A.D., Morton L.C.G., Blem J., Huang M., Liu S., Vallee S., Renault D., Schifter J., Skelding J., Gear S., Friede T., Turner A.N., Lennon R., Advances and unmet needs in genetic, basic and clinical science in Alport syndrome: Report from the 2015 International Workshop on Alport Syndrome (2017) NEPHROL DIAL TRANSPL, 32 (6), 916-924, IF:4.4700

- Guillen-Gomez E., Dasilva I., Silva I., Arce Y., Facundo C., Ars E., Breda A., Ortiz A., Guirado L., Ballarin J.A., Diaz-Encarnacion M.M., Early Macrophage Infiltration and Sustained Inflammation in Kidneys From Deceased Donors Are Associated With Long-Term Renal Function (2017) AM J TRANSPLANT, 17 (3), 733-743, IF:6.1650
- Kuebler B., Aran B., Miquel-Serra L., Munoz Y., Ars E., Bullich G., Furlano M., Torra R., Marti M., Veiga A., Raya A., Generation of integration-free induced pluripotent stem cell lines derived from two patients with X-linked Alport syndrome (XLAS) (2017) STEM CELL RES, 25, 291-295, IF:3.4940
- Kuebler B., Aran B., Miquel-Serra L., Munoz Y., Ars E., Bullich G., Furlano M., Torra R., Marti M., Veiga A., Raya A., Integrationfree induced pluripotent stem cells derived from a patient with autosomal recessive Alport syndrome (ARAS) (2017) STEM CELLRES, 25, 1-5, IF:3.4940
- Mateos Rodriguez A.A., Andres Belmonte A., Del Rio Gallegos F., Coll E., Factors affecting the survival of transplants from donors after prehospital cardiac death Factores que influyen en la evolución de los injertos de donantes tras muerte cardiaca extrahospitalaria (2017) EMERGENCIAS, 29 (3), 167-172, IF:3.0280
- Matesanz R., Dominguez-Gil B., Coll E., Mahillo B., Marazuela R., How Spain Reached 40 Deceased Organ Donors per Million Population (2017) AM J TRANSPLANT, 17 (6), 1447-1454, IF:6.1650
- Millan O., Budde K., Sommerer C., Aliart I., Rissling O., Bardaji B., Matz M., Zeier M., Silva I., Guirado L., Brunet M., Urinary miR-155-5p and CXCL10 as prognostic and predictive biomarkers of rejection, graft outcome and treatment response in kidney transplantation (2017) BRIT J CLIN PHARMACO, 83 (12), 2636-2650, IF:3.4930
- Molina P., Carrero J.J., Bover J., Chauveau P., Mazzaferro S., Torres P.U., Vitamin D, a modulator of musculoskeletal health in chronic kidney disease (2017) J CACHEXIA SARCOPENI, 8 (5), 686-701, IF:9.6970
- Nube M.J., Peters S.A.E., Blankestijn P.J., Canaud B., Davenport A., Grooteman M.P.C., Asci G., Locatelli F., Maduell F., Morena M., Ok E., Torres F., Bots M.L., Moreso F., Pons M., Ramos R., Mora-Macia J., Carreras J., Soler J., Campistol J.M., Martinez- Castela A., Insense B., Perez C., Feliz T., Barbeta M., Soto C., Mora J., Juan A., Ibrik O., Foraster A., Nin J. Fernandez A., Arruche M., Sanchez C., Vidiella J., Barbosa F., Chine M., Hurtado S., Llibre J., Ruiz A., Serra M., Salvo M., Poyuelo T., Maduell F., Carrera M., Fonsere N., Arias M., Merin A., Ribera L., Galceran J.M., Modol J., Moliner E., Ramirez A., Aguilera J., Alvarez M., De La Torre B., Molera M., Casellas J., Martin G., Andres E., Coll E., Valles M., Martinez C., Castellote E., Casals J.M., Gabas J., Romero M., Martinez-Castelao A., Fulladosa X., Ramirez-Arellano M., Fulquet M., Pelegri A., El Manouari M., Ramos N., Bartolome J., Sans R., Fernandez E., Sarro F., Compte T., Marco F., Mauri R., Bronsoms J., Arnaiz J.A., Beleta H., Pejenaute A., Rios J., Lara J., Ter Wee P.M., Van Den Dorpel M.A., Dorval M., Levesque R., Koopman M.G., Konings C.J.A.M., Haanstra W.P., Kooistra M., Van Jaarsveld B., Noordzij T., Feith G.W., Peltenburg H.G., Van Buren M., Offerman J.J.G., Hoogeveen E.K., De Heer F., Van De Ven P.J., Kremer Hovinga T.K., Bax W.A., Goeneveld J.O., Lavrijssen A.T.J., Schrandt-Van Der Meer A.M., Reichert L.J.M., Huussen J., Rensma P.L., Schrama Y., Van Hamersvelt H.W., Boer W.H., Van Kuijk

W.H., Vervloet M.G., Wauters I.M.P.M.J., Sekse I., Toz H., Ok E.S., Kircelli F., Yilmaz M., Hur E., Demirci M.S., Demirci C., Duman S., Basci A., Adam S.M., Isik I.O., Zengin M., Suleymanlar G., Yilmaz M.E., Ergin M.O.P., Sagdic A., Kayali E., Boydak C., Colak T., Caliskan S., Kaplan H., Ulas H., Kirbiyik S., Berktaş H., Dilbaz N., Cristol J.-P., Leray-Moragues H., Chenine L., Picot M.-C., Jaussent A., Belloc C., Lagarrigue M., Chalabi L., Debure A., Ouziala M., Lefevre J.-J., Thibaudin D., Mohey H., Broyet C., Afiani A., Serveaux M.-O., Patrier L., Maurice F., Rivory J.-P., Nicoud P., Durand C., Normand M., Seigneuric B., Magnant E., Azzouz L., Islam M.S., Vido S., Nzeyimana H., Simonin D., Azymah Y., Farah I., Coindre J.-P., Puyoo O., Chabannier M.-H., Ibos R., Rouleau F., Vela C., Joule J., Combarnous F., Turc-Baron C., Ducret F., Pointet P., Rey I., Potier J., Bendini J.-C., Perrin F., Kunz K., Lefrancois G., Colin A., Parahy S., Dancea I., Coupel S., Testa A., Brunet P., Lebrun G., Jaubert D., Delcroix C., Lavainne F., Lefebvre A., Guillodo M.-P., Le Grignou D., Djema A., Maaz M., Chiron S., Hoffmann M., Depraetre P., Haddj-Elmrabet A., Joyeux V., Fleury D., Vrigneaud L., Lemaitre V., Aguilera D., Guerraoui A., Cremault A., Laradi A., Babinet F., Mortality reduction by post-dilution online-haemodiafiltration: A cause-specific analysis (2017) *NEPHROL DIAL TRANSPL*, 32 (3), 548-555, IF:4.4700

- Pimentel A., Urena-Torres P., Zillikens M.C., Bover J., Cohen-Solal M., Fractures in patients with CKD—diagnosis, treatment, and prevention: a review by members of the European Calcified Tissue Society and the European Renal Association of Nephrology Dialysis and Transplantation (2017) *KIDNEY INT*, 92 (6), 1343-1355, IF:8.3950
- Rodriguez Faba O., Palou J., Vila Reyes H., Guirado L., Palazzetti A., Gontero P., Vignes F., Garcia-Olaverri J., Fernandez Gomez J.M., Olsburg J., Terrone C., Figueiredo A., Burgos J., Lledo E., Breda A., Treatment options and predictive factors for recurrence and cancer-specific mortality in bladder cancer after renal transplantation: A multi-institutional analysis Opciones terapéuticas y factores predictivos de recurrencia y mortalidad cáncer-específica en pacientes con tumor vesical después de trasplante renal: análisis multiinstitucional (2017) *ACTAS UROL ESP*, 41 (10), 639-645, IF:1.1810
- Rodriguez-Ribera L., Corredor Z., Silva I., Diaz J.M., Ballarin J., Marcos R., Pastor S., Coll E., Vitamin E-coated dialysis membranes reduce the levels of oxidative genetic damage in hemodialysis patients (2017) *MUTAT RES-GEN TOX EN*, 815, 16-21, IF:2.1330
- Sans L., Radosevic A., Quintian C., Montanes R., Gracia S., Vilaplana C., Mojal S., Ballarin J.A., Fernandez-Llama P., Torra R., Pascual J., Cystatin C estimated glomerular filtration rate to assess renal function in early stages of autosomal dominant polycystic kidney disease (2017) *PLOS ONE*, 12 (3), -, IF:2.8060
- Torres P.A.U., Bover J., Cohen-Solal M., Etelcalcetide: Injectable calcimimetic for the treatment of secondary hyperparathyroidism in hemodialysis-dependent patients (2017) *DRUG TODAY*, 53 (9), 489-500, IF:0.9430
- Vervloet M.G., Brandenburg V.M., Bover J., Brandenburg V., Covic A., Cozzolino M., Evenepoel P., Goldsmith D., Massy Z., Mazzaferro S., Urena-Torres P., Vervloet M., Circulating markers of bone turnover (2017) *J NEPHROL*, 30 (5), 663-670, IF:2.1530

OTHER PUBLICATIONS

- Transición coordinada del paciente con cistinosis desde la medicina pediátrica a la medicina del adulto. Ariceta, G., Camacho JA., Fernández-Obispo M., Fernández-Polo A., Gamez J., García-Villoria J., Lara E., Leyes P., Martín-Begue N., Perello, M., Pintos

- G., Torra R., Torregrosa JV., Torres S., Vila A., Güell A. (2017) NEFROLOGIA 36 6 616-630. IF: 1,1830
- Rare diseases, rare presentations: recognizing atypical inherited kidney disease phenotypes in the age of genomics. Ars E., Torra R. (2017) Clin Kidney J 10 5 632-638 IF: 4,470
 - Revisión de la nefropatía tubulointersticial autosómica dominante. Ayareh N., Miquel R., Matamala A., Ars E., Torra R. (2017) NEFROLOGÍA 37 3 352-354. IF: 1,1830
 - Detección de las calcificaciones cardiovasculares. ¿Una herramienta útil para el nefrólogo? Bover J., Górriz JL., Ureña P., Lloret MJ., Ruiz C., Da Silva I., Chang P., Rodríguez M., Ballarín J. (2017) NEFROLOGIA 36 6 587-596 IF: 1,1830
 - Clinical and practical use of calcimimetics in dialysis patients with secondary hyperparathyroidism. Bover J., Ureña P., Ruiz C., Da Silva I., Lescano P., Del Carpio J., Ballarín J., Cozzolino M. (2017) CLIN J AM SOC NEPHROL 11 1 161-174 IF:4,780
 - Integral pharmacological management of bone mineral disorders in chronic kidney disease (PART I): from treatment of phosphate imbalance to control of pth and prevention of progression of cardiovascular calcification. Bover J., Ureña P., Lloret MJ., Ruiz C., Da Silva I., Díaz M., Mercado C., Mateu S., Fernández E., Ballarín J. (2017) EXPERT OPIN PHARMACOTHER 17 9 1247-1258 IF: 3,894
 - Integral pharmacological management of bone mineral disorders in chronic kidney disease (PART II): from treatment of phosphate imbalance to control of pth and prevention of progression of cardiovascular calcification. Bover J., Ureña P., Lloret MJ., Ruiz C., Da Silva I., Díaz M., Mercado C., Mateu S., Fernández E., Ballarín J. (2017) EXPERT OPIN PHARMACOTHER 17 10 1363-1373 IF: 3,894
 - Calcificaciones cardiovasculares en la enfermedad renal crónica: potenciales implicaciones terapéuticas. Bover J., Ureña P., Górriz JL., Lloret MJ., Da Silva I., Ruiz C., Chang P., Rodríguez M., Ballarín J. (2017) NEFROLOGIA 36 6 597-608 IF: 1,1830
 - Mutations in keops-complex genes cause nephrotic syndrome with primary microcephaly. Braun DA., Rao J., Mollet G., Shapiro D., Dageron MC., Tan W., Gribouval O., Boyer O., Revy P., Furlano M., Mane S., Lifton RP., Bouchard M., Kannu P., Chitayat D., Magen D., Callewaert B., Van Tilbeurgh H., Zenker M., Antignac C., Hildebrandt F. (2017) Nat Genet 49 10 1529-1538. 27,959
 - Robotic kidney transplantation: one year after the beginning. Breda A., Territo A., Gausa L., Rodríguez-Faba O., Caffaratti J., de León P., Guirado L., Facundo C., Guazzieri M., Guttilla A., Villavicencio H. (2017) World J Urol 35 10 1507-1515. IF: 2,743
 - Recommendations for imaging-based diagnosis and management of renal angiomyolipoma associated with tuberous sclerosis complex. Bruj MJ., Marti T., Torra R., Villacampa F. (2017) Clin Kidney J 10 7 728-737 IF: 4,470
 - Alteración genética no descrita previamente en 2 pacientes pediátricos con síndrome de Alport. Influencia pronóstica del genotipo. Butragueño L., Ars E., Martínez López AB., Alvarez O., Tejado JJ., Luque de Pablos A. (2017) NEFROLOGÍA 37 1 87-92 IF: 1,1830
 - Markers of endothelial damage in patients with chronic kidney disease on hemodialysis. Carmona A., Agüera ML., Luna C., Buendía P., Calleros L., García Jerez A., Rodríguez Puyol M., Arias M., De Arriba G., Ballarín J., Poch E., Portoles JM., Rodríguez Puyol D.,

Sanchez Villanueva R., Sarro F., Torres A., Martin Malo A., Aljama A., Ramirez P. (2017) *Am J Physiol Renal Physiol* 312 4 F673-F681 IF: 3,611

- Levels of DNA damage in peripheral blood lymphocytes of patients undergoing standard hemodialysis vs on-line hemodiafiltration: a coment assay investigation. Corredor Z., Rodríguez Ribera L., Silva I., Díaz JM., Ballarín J., Marcos R., Coll E., Pastor S. (2017) *MUTAT RES GENET TOXICOL ENVIRON MUTAGEN* 808 1-7 IF: 2,133
- Plan Prefine: Plan estratégico para la enfermedad de Fabry en nefrología. Del Pino, MD., Ortiz A., Torra R., Hernandez D. (2017) *NEFROLOGIA* 36 4 376-380 IF: 1,1830
- Acute renal failure secondary to rhabdomyolysis as a complication of major urological surgery: the experience of a high-volume urological center. De Gracia, A; Angerri, O; Bover, J; Salas, D; Villamizar, JM; Villavicencio, H. (2017) *MED PRINC PRACT* 2017 25 4 329-335 IF: 1,469
- Parathyroid hormone metabolism and signaling in health and chronic kidney disease. Evenepoel, P; Bover, J; Ureña, P. *KIDNEY INT* 2017, 90(6): 1184-1190 IF: 8,3950
- Efectos pleiotropicos del paracalcitol. Más allá del metabolismo óseo mineral. Egido J., Martínez-Castelao A., Bover J., Praga M .Torregrosa JV., Fernández-Giraldez E., Solozabal C. (2017) *NEFROLOGIA* 36 1 10-18 IF: 1,1830
- Therapeutic variability in adult minimal change disease and focal segmental glomerulosclerosis. Fernández Juárez G., Villacorta J., Ruiz G., Panizo N., Martínez Marin I., Marco, H., Arrizabalaga P., Díaz M., Pérez Gómez V., Vaca M., Rodríguez E., Cobelo C., Fernández L., Ávila A., Praga M., Quereda C., Ortiz A. (2017) *CLIN KIDNEY J* 9 3 381-386 IF: 4,470
- Recommendations for the use of tolvaptan in autosomal dominant polycystic kidney disease: a position statement on behalf of the era-edta working groups on inherited kidney disorders and european renal best practice. Gansenvoort RT., Arici M., Benzing T., Birn H., Capasso G., Covic A., Devuyst O., Drechsler C., Eckardt KU., Emma F., Knebelmann B., Le Meur Y., Massy ZA., Ong AC., Ortiz A., Schaefer F., Torra R., Vanholder R., Wiecek A., Zoccali A., Van Biesen W. (2017) *NEPHROL DIAL TRANSPLANT* 31 3 337-348 IF: 4,4700
- Treatment of Fabry's disease with the pharmacologic chaperone migalastat. Germain DP., Hughes DA., Nicholls K., Bichet DG., Giugliani R., Wilcox WR., Feliciani C., Shankar SP., Ezgu F., Amartino H., Bratkovic D., Feldt- Rasmussen U., Torra, R., Benjamin ER., Johnson F., Lockhart DJ., Skuban N., Castelli J., Barth J., Barlow CS. (2017) *N ENGL J MED* 375 6 545-555 IF: 72,406
- Reduced adenosine uptake and its contribution to signaling that mediates profibrotic activation in renal tubular epithelial cells: implication in diabetic nephropathy. Kretschmar C., Oyarzun, C., Villablanca C., Jaramillo C., Alarcón S., Pérez G., Díaz M., Pastor M., Garrido W., Quezada C., San Martin R.(2017)*PLOS ONE* , 11(1): - IF: 2,8060
- Drent international multi-specialty delphi survey: identification of diagnostic criteria for hepatic and renal cyst infection. Lantinga MA., Darding AJ., De Sevaux RG., Alam A., Bleeker-Rovers CP., Bobot M., Cornec-Le Gall E., Gevers TJ., Hassoun Z., Meijer E., Piccoli GB., Pirson Y., Rangan GK., Torra, R., Visser FW., Jouret F; Kanaan N., Oyen WJ., Suwabe WJ., Torres VE. (2017)*NEPHRON* 134 4 205-214 IF: 1,939

- Magnesium-based interventions for normal kidney function and chronic kidney disease. Massy, ZA; Nistor, I; Apretii, M; Brandenburg, VM; Bover, J; Evenepoel, P; Goldsmith, D; Mazzaferro, S; Ureña, P; Vervloet, M; Cozzolino, M; Covic, A. ERA-EDTA ob.(2017) MAGNES RES 29 4 126-140. IF: 1,156
- Recomendaciones para el abordaje multidisciplinar del complejo esclerosis tuberosa. Macaya A., Torra, R. (2017) MED CLIN 147 5 211-216 IF: 1,125
- High proportion of CD95 (+) in cultured CD8 (+) T cells predicts acute rejection and infection, respectively, in kidney recipients. Mancebo E., Castro MJ., Allende LM., Talayero P., Brunet M., Millán O., Guirado LL., López- Hoyos M., San Segundo D., Rodrigo E., Muñoz P., Boix F., Llorente S., Muro M., Paz-Artal E. (2017) TRANSPL IMMUNOL 34 1 33-41 IF:1,760
- What is the optimal level of vitamin D in non-dialysis chronic kidney disease population? Molina P., Gorriz JL., Molina M., Beltran S., Vizcaino B., Escudero V., Kanter J., Avila A., Bover J., Fernández E., Nieto J., Cigarran S., Gruss E., Fernández Juárez G., Martínez-Castelao A., Navarro-González JF., Romero R., Pallardo L. (2017) WORLD J NEPHROL 5 5 471-481
- Role of mtor inhibitors for the control of viral infection in solid organ transplant recipients. Pascual J., Royuela A., Fernández AM., Herrero I., Delgado JF., Sole A., Guirado LL., Serrano T., De La Torre J., Moreno A., Cordero E., Gallego R., Lumberras C., Aguado JM. (2017)TRANSPL INFECT DIS 18 6 819-831 IF: 1,719
- Clinical evolution of post-transplant diabetes mellitus. Porrini E., Díaz JM., Moreso F., Delgado Mallen P., Silva I., Ibernón M., Bayes B., Benitez R., Lampreabe I., Lauzurica R., Osorio JM., Osuna A., Domínguez R., Ruiz JC., Jiménez Sosa A., González Rinne A., Marrero D., Macia M., García J., Torres A. (2017) NEPHROL DIAL TRANSPLANT 31 3 495-505 IF:4,4700
- Everolimus safety and efficacy for renal angiomyolipomas associated with tuberous sclerosis complex: a spanish expanded access trial. Robles NR., Peces R., Gómez Ferrer A., Villacampa F., Alvarez-Ossorio JL., Pérez Segura P., Morote J., Herrera B., Nieto J., Carballido J., Anido U., Valero M., Meseguer C., Torra R. (2017) ORPHANET J RARE DIS 11 1 128 IF: 3,478
- Genetic damage in patients moving from hemodialysis to online hemodiafiltration. Rodríguez Ribera L., Pastor S., Corredor Z., Silva I., Díaz, JM., Ballarín J., Marcos R., Coll E. (2017) MUTAGENESIS 31 2 131-135 IF: 2,507
- Efficacy of mycophenolate treatment in adults with steroid-dependent/frequently relapsing idiopathic nephrotic syndrome Sandoval D., Poveda R., Draibe J., Perez Oller I., Diaz M., Ballarin J., Saurina A., Marco H., Bonet J., Barros X., Fulladosa X., Torras J., Cruzado JM.. (2017) Clin Kidney J 10 5 632-638 IF: 4,470
- Renal volume and cardiovascular risk assessment in normotensive autosomal dominant polycystic kidney disease patients. Sans L., Pascual J., Radosevic A., Quintian C., Ble M., Molina L., Mojal S., Ballarín J., Torra R., Fernández Llama P. (2017) MEDICINE 95 49 E5595 IF: 1,804
- X-linked and autosomal recessive alport syndrome: pathogenic variant features and further genotype-phenotype correlations. Savige J., Storey H., Cheong H., Gyung Kang H., Park E., Hilbert P., Persikov A., Torres Fernández C., Ars E., Torra R., Hertz JM., Thomassen M., Shagam L., Wang D., Wang Y., Flinter F., Nagel M. (2017) PLOS ONE 11 9 IF: 2,8060

- Criteria for and appropriateness of renal transplantation in elderly patients with end-stage renal disease: a literature review and position statement on behalf of the european renal association-european dialysis and transplant association Descartes work. Segall L., Nistor I., Pascual J., Mucsi I. Guirado LL., Higgins R. Van Laecke S., Oberbauer R., Van Biesen W., Abramowicz D., Gavrilovici C., Farrington K., Covic A. (2017) TRANSPLANTATION 100 10 E55-E65. IF: 3,6780
- Atlas de variaciones sistemáticas en el tratamiento sustitutivo renal en Catalunya (2002-2012). Tebe C., Arcos E., Comas J., Espallargues M., Pons JMV., Díaz JM., Tort J., Martínez-Castelao A. (2017) NEFROLOGÍA 37 2 164-171. IF: 1,1830
- Mineral metabolism disorders, vertebral fractures and aortic calcifications in stable kidney transplant recipients: the role of gender (EMITRAL STUDY). Torres A. Torregrosa JV., Marcen R., Campistol JM., Arias M., Hernández D., Fernández C., Esforzado N., Paschoalin R., Díaz JM., Silva I., Cruzado J.M., Martínez-Castelao A., Bravo J., Rodríguez M., García T., Llamas F., Ortega A., Crespo M., Conde JL. (2017) NEFROLOGIA 36 3 255-267 IF: 1,1830
- A phase 2, double blind, placebo controlled, randomized study of fresolimumab in patients with steroid-resistant primary focal segmental glomerulosclerosis. Vincenti F., Fervenza FC., Campbell KN., Díaz M., Gesualdo L., Nelson P., Praga M., Radhakrishnan J., Sellin L., Singh A., Thornley-Brown D., Veronese FV., Accomando B., Engstrand S., Ledbetter S., Lin J., Neylan J., Tumlin J. (2017) Kidney Int Rep 2 5 800-810
- Advancing Transplantation: New Questions, New Possibilities in Kidney and Liver Transplantation. Wadström J, Ericzon BG., Halloran PF., Bechstein WO., Opelz G., Serón D., Grinyó J., Loupy A., Kuypers D., Mariat C., Clancy M., Jardine AG., Guirado L., Fellström B., O'Grady J., Pirenne J., O'Leary JG., Aluvihare V. Çkârüne Baccarani U., Neuberger J., Soto-Gutierrez A., Geissler EK., Metzger M, Gray M. (2017) Transplantation 101 Suppl 2S S1-S41 IF:3,6780

AWARDS

- "Recognition of research, clinical outreach and the spread of rare diseases and / or orphan drugs. Best clinical career". Dra R Torra. Madrid, 27th November. Award from the Asociación Española de Laboratorios de medicamentos huérfanos y ultrahuérfanos (AELMHU).

DOCTORAL THESES

- C Facundo: "Avaluació del filtrat glomerular en el donant viu renal", Universitat Autònoma de Barcelona, Director: LI Guirado, 30th October
- C Canal. "Supervivència d'empelt i pacient a llarg termini en el trasplantament renal a Catalunya", Universitat Autònoma de Barcelona, Director: LI Guirado, 13th December
- N Ayasreh, "Nefropatía tubulointersticial autosómica dominante", Universitat Autònoma de Barcelona, Directors: R. Torra and E Ars, 2nd June
- H Marco, "El Rituximab como tratamiento en las enfermedades autoinmunes", Universitat Autònoma de Barcelona, Directors: J Ballarín, D Jayne, M Díaz-Encarnación, 14th July

TRANSFER PRODUCTS

- "Talking about Dominant Kidney Poliquistosis. Patient and familiars information session". DIRECTION: Dr J.Ballarin and ALCER Patient Association. Barcelona, 17th October
- "Living with kidney disease (VI edition meeting for patients)". DIRECTION: Dr J.Ballarin. Barcelona, 16th November