

NEPHROLOGY GROUP



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MAIN LINES OF RESEARCH

Proteomics Applied to Nephrology and Hypertension

Water and sodium renal transport analysed from urinary exosomes, urinary proteomic characterization in diabetic nephropathy: evaluation of renal-angiotensin blockade.

Hereditary Kidney Diseases

Genetic and clinical studies in cystic and glomerular inherited kidney diseases such as polycystic kidney disease, Alport, corticoid-resistant nephrotic syndrome, Fabry disease, tuberous sclerosis and familial nephropathies of uncertain origin.

Glomerular Disorders

Molecular and clinical studies in disorders such as membranous glomerulopathy and vasculitis with renal involvement, among others.

Kidney Transplantation

Protocol biopsies, chronic transplant nephropathy, kidney transplant and associated cardiovascular risk factors, pharmacogenetic and genomic studies.

Chronic Kidney Disease (CKD)

Early diagnosis of CKD, epidemiological and clinical studies in CKD-related complications such as renal anaemia, CKD mineral and bone disorders (CKD-MBD) and associated cardiovascular risk; haemodialysis techniques and studies of genetic damage in patients with CKD.

Mechanisms of epithelial-mesenchymal transition and renal fibrosis.

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.

AWARDS

Lluís Guirado Perich, Clinical head of Renal Transplant of the Department of Nephrology. Award for Professional Excellence. Fundació Puigvert. 18th May.

Iara DaSilva, Edison Rudas, Jackeline del Carpio, Cesar Ruiz, Patricia Lescano, Pamela Chang, Cyntia Mercado, Nadia Ayasreh, Montserrat Diaz-Encarnacion, Jose Ballarin. Tratamiento con rituximab en el síndrome nefrótico idiopático corticod dependiente. Best Oral Communication. XXXI Reunión Anual de la Sociedad Catalana de Nefrología. 12th June.

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.

Platforms

- Biobank platform.

EXTERNAL COLLABORATIONS

Other 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 Platform: 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

- "Enfermedades renales hereditarias quísticas y glomerulares: secuenciación masiva de un panel de genes para mejorar su diagnóstico y del exoma para identificar nuevos genes". Ars E. PI13/01731. Instituto de Salud Carlos III (FEDER cofunded). Duration: 2014-2016. 68,000 €
- "Contractes per a la intensificació de l'activitat investigadora en el SNS 2014". Torra R. Exp: INT14/00214. Instituto de Salud Carlos III. Duration: 2015. 30,000 €
- "Ajuts de suport als Grups de Recerca de Catalunya: Grup de Recerca en Nefrologia". Ballarín J. Exp: 2014. SGR 1441. AGAUR Duration: 2014-2016
- "Kidney Research Network". Ballarín J. Exp: RD12/0021/0033. Instituto de Salud Carlos III (FEDER cofunded). Duration: 2013- 2016. 92,250 €
- "Diabetic nephropathy: characterisation of urinary proteoma and evaluation of renin angiotensin blocker treatment". Fernandez-Llama P. Exp: PI10/01261. Instituto de Salud Carlos III (FEDER cofunded). Duration: 2011- 2015. 181,742€
- "Genomic study of familial nephropathies of uncertain etiology". Torra R. Exp: PI12/01523. Instituto de Salud Carlos III (FEDER cofunded). Duration: 2013- 2015. 109,505 €

- “Involvement of nucleoside transporter ENT1 in the modulation of macrophage-mediated renal fibrosis”. Díaz MM. Exp:PI12/01524. Instituto de Salud Carlos III (FEDER cofunded). Duration: 2013-2015. 41,745 €
- “Prognostic biomarkers and strategies to decrease the morbimortality in chronic kidney disease patients”. Coll E. Exp: PI12/02559. Instituto de Salud Carlos III (FEDER cofunded). Duration: 2013- 2015. 126,445€

THESES

- L Sans. “Estudio del perfil cardiovascular, sistema renina-angiotensina-aldosterona, inflamacion y disfuncion endotelial en pacientes normotensos con poliquistosis renal autosomica dominante y sin insuficiencia renal”. Directors: Patricia Fernandez-Llama, Julio Pascual. 10th September

SCIENTIFIC PRODUCTION

TIF: 71.0610 MIF: 4.1800

- Anguiano L., et al, Circulating angiotensin converting enzyme 2 activity in patients with chronic kidney disease without previous history of cardiovascular disease (2015) NEPHROL DIAL TRANSPL, 30 (7), 1176-1185. IF: 4.0850
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- Bover J., Evenepoel P., Urena-Torres P., Vervloet M.G., Brandenburg V., Mazzaferro S., Covic A., Goldsmith D., Massy Z.A., Cozzolino M., Pro: Cardiovascular calcifications are clinically relevant (2015) NEPHROL DIAL TRANSPL, 30 (3), 345-351. IF: 4.0850
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- Cabrera-Lopez C., Bullich G., Marti T., Catala V., Ballarin J., Bissler J.J., Harris P.C., Ars E., Torra R. Insight into response to motor inhibition when pkd1 and tsc2 are mutated. (2015) BMC MED GENET, 16, 39. IF: 3.3800
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- V.E., Watnick T., Wheeler D.C., Ahn C., Alam A., Aussilhou B., Bae K.T., Bennett W.M., Bergmann C., Bichet D.G., Budde K., Chauveau D., Cowley B., De Coninck B., Dell K.M., Drenth J.P.H., Ecdet T., Emma F., Ferec C., Flamion B., Galletti F., Gitomer B., Grantham J.J., Harr N., Harris P.C., Higashihara E., Hodouchi E., Hogan M.C., Jha V., Korst U., Lagrafeuil C., Martin R.S., Mei C., Mrug M., Obrador G.T., Ong A.C.M., Onuchic L.F., Pavia L.S., Rangan G.K., Sandford R., Serra A.L., Steinman T.I., Strandgaard S., Walz G., Winearls C.G., Winston K.Y., Autosomal-dominant polycystic kidney disease (ADPKD): Executive summary from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference (2015) *KIDNEY INT*, 88 (1), 17-27. IF: 7.6830
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 - Gomiz J.L., Molina P., Cerveron M.J., Vila R., Bover J., Nieto J., Barril G., Martinez-Castelao, A., Fernandez E., Escudero V., Pinera C., Adragao T., Navarro-Gonzalez J.F., Molinero L.M., Castro-Alonso C., Pallardo L.M., Jamal S.A., Vascular calcification in patients with Nondialysis CKD over 3 years (2015) *CLIN J AM SOC NEPHRO*, 10 (4), 654-666. IF: 4.6570
 - Martinez-Castelao A., Cases A., Coll E., Bonal J., Galceran J.M., Fort J., Moreso F., Torregrosa, J.-V., Guirado L., Ruiz P., Torguet P., Lauzurica R., Garcia R., Llibre J., Fulladosa X., Canas L., Bayes B., C.E.R.A. administered once monthly corrects and maintains stable hemoglobin levels in chronic kidney disease patients not on dialysis: The observational study MICENA II (2015) *NEFROLOGIA*, 35 (1), 80-86. IF: 1.2070
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 - Parfrey P.S., et al, Evaluation of Cinacalcet HCL Therapy to Lower Cardiovascular Events (EVOLVE) Trial Investigators, The effects of cinacalcet in older and younger patients on hemodialysis: The evaluation of cinacalcet HCL therapy to lower cardiovascular events (EVOLVE) trial (2015) *CLIN J AM SOC NEPHRO*, 10 (5), 791-799. IF: 4.6570
 - Rodriguez-Ribera L., Corredor Z., Sandoval S.B., Coll E., Silva I., Diaz J.M., Ballarin J., Marcos R., Pastor S., Radiosensitivity in patients suffering from chronic kidney disease (2015) *INT J RADIAT BIOL*, 91 (2), 172-178. IF: 1.7790

OTHER PUBLICATIONS

- Pippias M., Stel V.S., Abad Diez J.M., Afentakis N., Herrero-Calvo J.A., Arias M., Tomilina N., Bouzas Caamano E., Buturovic-Ponikvar J., Čala S., Caskey F.J., Castro de la Nuez P., Cernevskis H., Collart F., Alonso de la Torre R., Garcia Bazaga M.L., De Meester J., Diaz J.M., Djukanovic L., Ferrer Alamar M., Finne P., Garneata L., Golan E., Gonzalez Fernandez R., Gutierrez Avila G., Heaf J., Hoitsma A., Kantaria N., Kolesnyk M., Kramar R., Kramer A., Lassalle M., Leivestad T., Lopot F., Macario F., Magaz A., Martin-Escobar E., Metcalfe W., Noordzij M., Palsson R., Pechter U., Prutz K.G., Ratkovic M., Resić H., Rutkowski B., Santiuste de Pablos C., Spustova V., Suleymanlar G., Van Stralen K., Thereska N., Wanner C., Jager KJ. Renal replacement therapy in Europe: a summary of the 2012 ERAEDTA Registry Annual Report. (2015) CLIN KIDNEY J, 8(3), 248-61.
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