

Ecodialysis: is it possible to design an eco-friendly system?

Original

Ecodialysis: is it possible to design an eco-friendly system? / Ferraresi, M.; Pereno, Amina; Nazha, M.; Barbero, Silvia; Piccoli, G. B.. - In: NEPHROLOGY DIALYSIS TRANSPLANTATION. - ISSN 1460-2385. - ELETTRONICO. - 29:Supplement 3(2014), pp. 210-210. [10.1093/ndt/gfu153]

Availability:

This version is available at: 11583/2551346 since:

Publisher:

Oxford University Press

Published

DOI:10.1093/ndt/gfu153

Terms of use:

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

Publisher copyright

(Article begins on next page)



Piet Mondrian, Naken: The Windmill in Sunlight, 1908
© 2012 Mondrian/Holtzman Trust c/o HCR International USA

ndt

NEPHROLOGY DIALYSIS TRANSPLANTATION

Basic and clinical renal science

ABSTRACTS

51ST ERA-EDTA CONGRESS

AMSTERDAM THE NETHERLANDS

MAY 31ST JUNE 3RD

2014

www.era-edta2014.org

OXFORD  OPEN

OXFORD
UNIVERSITY PRESS

www.ndt.oxfordjournals.org



Official Publication of the European
Renal Association - European Dialysis
and Transplant Association

ERA-EDTA COUNCIL

President

Raymond Vanholder, Belgium

Secretary-Treasurer

Andrzej Wiecek, Poland

Chairperson of the Administrative Offices

Markus Ketteler, Germany

Editor-in-Chief of "Nephrology Dialysis Transplantation"

Carmine Zoccali, Italy

Chairperson of the Registry

Christoph Wanner, Germany

Ordinary Council Members

Denis Fouque, France

(Chairperson of the Paper Selection Committee)

Jonathan G. Fox, UK

Loreto Gesualdo, Italy

Michel Jadoul, Belgium

Ziad Massy, France

Gert Mayer, Austria

Mehmet Sükrü Sever, Turkey

Vladimir Tesar, Czech Republic

Congress Presidents (Amsterdam - The Netherlands)

Pieter M. ter Wee, The Netherlands

Raymond Vanholder, Belgium

ORGANISING COMMITTEE

ERA-EDTA President: Raymond Vanholder, Belgium
Congress President: Pieter ter Wee, The Netherlands
Congress Secretary: Peter Blankestijn, The Netherlands

SCIENTIFIC COMMITTEE

Chair: David C. Wheeler, UK

Raymond Vanholder, Belgium
Kerstin Amann, Germany
Suheir Assady, Israel
Michel Azizi, France
René Bindels, The Netherlands
Peter Blankestijn, The Netherlands
Jorge B. Cannata-Andia, Spain
Rosanna Coppo, Italy
Denis Fouque, France
Loreto Gesualdo, Italy
Olof Heimbürger, Sweden
Marian Klinger, Poland
Robert Lechler, UK
Ziad Massy, France
Petra Reinke, Germany
Mehmet Sukru Sever, Turkey
James Tattersall, UK
Ineke ten Berge, The Netherlands
Pieter ter Wee, The Netherlands
Vladimir Tesar, Czech Republic
Wim van Biesen, Belgium
Christoph Wanner, Germany
Carmine Zoccali, Italy

PAPER SELECTION COMMITTEE

ERA-EDTA is grateful to the following physicians for the work done in reviewing the abstracts submitted to this year's congress.

Chair

Denis Fouque, France

Core group

Peter J. Blankestijn, The Netherlands

Pieter M. ter Wee, The Netherlands

David C. Wheeler, UK

Section Chairs

Acid-base/Na, K, Cl. Proteins and cell physiology

Carsten Wagner, Switzerland

Cell signalling. Cell growth control and related alterations (hypertrophy, hyperplasia and apoptosis) including neoplasia

Jesus Egido, Spain

Renal development and cystic diseases

Adrian S. Woolf, UK

Genetic diseases and molecular genetics

Olivier Devuyst, Switzerland

Hormones

Peter Gross, Germany

Basic and clinical hypertension research and renal haemodynamics

Roland E. Schmieder, Germany

Acute Renal Failure - Human studies

Norbert Lameire, Belgium

Acute Renal Failure - Experimental models

Andreas Kribben, Germany

Lab methods, progression & risk factors for CKD, nutrition in CKD, renal diseases (except GNs and cystic diseases)

Danilo Fliser, Germany

General and Clinical Epidemiology and CKD 1-5

Bénédicte Stengel, France

Anaemia in CKD 1-5
Michel Jadoul, Belgium

Bone disease in CKD 1-5
Pieter Evenepoel, Belgium

Pathophysiology and clinical studies in CKD 1-5
Ivan Rychlik, Czech Republic

Nutrition, inflammation and oxidative stress in CKD 1-5
Daniel Teta, Switzerland

Diabetes - Basic research
Erwin Schleicher, Germany

Diabetes - Clinical studies
Peter Rossing, Denmark

Acid Base and N/K related diseases, nephrolithiasis, divalent ions and divalent ions disorders
Giovanni Gambaro, Italy

Clinical Nephrology, primary and secondary glomerulonephritis
Claudio Ponticelli, Italy

Experimental pathology
Ariela Benigni, Italy

Immune and inflammatory mechanisms
Hans-Joachim Anders, Germany

Renal histopathology
Jan J. Weening, The Netherlands

Extracorporeal dialysis: techniques and adequacy
Martin K. Kuhlmann, Germany

Peritoneal dialysis
Olof Heimbürger, Sweden

Cardiovascular complications in CKD 5D
Carmine Zoccali, Italy

Vascular access in extracorporeal dialysis
Pietro Ravani, Italy/Canada

Protein energy wasting, oxidative stress and inflammation in CKD 5D
Tilman B. Drueke, France

Bone disease in dialysis patients
João M. Frazão, Portugal

Pathophysiology and clinical studies in CKD 5D patients

Raymond Vanholder, Belgium

Epidemiology, outcome research, health services research in CKD 5D

Friedo Dekker, The Netherlands

Protein-energy wasting, inflammation and oxidative stress in CKD 5D

Peter Barany, Sweden

Transplantation basic science and immunetolerance of allogenic and xenogenic transplants

Bruno Watschinger, Austria

Clinical epidemiology of renal transplantation

Anders Hartmann, Norway

Paediatric nephrology

Christer Holmberg, Finland

Reviewers

Daniel Abramowicz, Belgium
Marcin Adamczak, Poland
Dwomoa Adu, Ghana
Alberto Albertazzi, Italy
Alessandro Amore, Italy
Björn Anderstam, Sweden
Vittorio E. Andreucci, Italy
Michele Andreucci, Italy
Theofanis Apostolou, Greece
Anders Åsberg, Norway
Jan Aten, The Netherlands
Per-Ola Attman, Sweden
Jonas Axelsson, Sweden
Justine Bacchetta, France
Bert Bammens, Belgium
Ali Basci, Turkey
Carlo Basile, Italy
Laurent Baud, France
Joachim Beige, Germany
Thomas Benzing, Germany
Nathalie Biebuyck, France
Patrick Biggar, Germany
Peter J. Blankestijn, The Netherlands
Carsten Boeger, Germany
Alessandra Boletta, Italy
Davide Bolignano, Italy
Jürgen Bommer, Germany
Annette Bruchfeld, Sweden

Yasar Caliskan, Turkey
Giovanni Cancarini, Italy
Giovambattista Capasso, Italy
Cristina Stela Capusa, Romania
Fernando Carrera, Portugal
Juan Jesus Carrero Roig, Sweden
Francesco G. Casino, Italy
Fergus Caskey, UK
Giuseppe Castellano, Italy
Philippe Chauveau, France
Michal Chmielewski, Poland
Gabriel Choukroun, France
Erik Ilsø Christensen, Denmark
Anders Christensson, Sweden
Pierre Cochat, France
Gerald Cohen, Austria
Clemens D. Cohen, Germany
Christian Combe, France
Peter Joseph Conlon, Ireland
Rosanna Coppo, Italy
Mario Cozzolino, Italy
Mohamed R. Daha, The Netherlands
Andrew Davenport, UK
Angel de Francisco, Spain
Johan De Meester, Belgium
Dick De Zeeuw, The Netherlands
Guy Decaux, Belgium
Lucia Del Vecchio, Italy

Pierre Delanaye, Belgium
Nada Dimkovic, Serbia
Ljubica Djukanovic, Serbia
Joerg Doetsch, Germany
Soner Duman, Turkey
Magdalena Durlik, Poland
Tevfik Ecder, Turkey
Agneta Ekstrand, Sweden
Kathrin Eller, Austria
Ekrem Ereke, Turkey
Bo-Goran Ericzon, Sweden
Vincent L.M. Esnault, France
Stanley Fan, UK
Christopher K.T. Farmer, UK
John Feehally, UK
Bo Feldt-Rasmussen, Denmark
Bengt Fellström, Sweden
Robert Fenton, Denmark
Franco Ferrario, Italy
Anibal Ferreira, Portugal
Patrik Finne, Finland
Michael Fischereder, Germany
Jürgen Floege, Germany
Sandrine Florquin, The Netherlands
Joan Fort, Spain
Jonathan G. Fox, UK
Ulrich Frei, Germany
Luc Frimat, France
Jan Galle, Germany
Maurizio Gallieni, Italy
Colin Geddes, UK
Giorgio Gentile, Italy
Matthias Girndt, Germany
Eric Goffin, Belgium
Matthew D. Griffin, Ireland
Josep M. Grinyo, Spain
Hermann-Josef Groene, Germany
Per-Henrik Groop, Finland
Oliver Gross, Germany
Fitsum Guebre-Egziabher, France
Paul Gusbeth-Tatomir, Romania
Dieter Haffner, Germany
Nynke Halbesma, UK
Hermann Haller, Germany
Marion Haubitz, Germany
James Heaf, Denmark
Uwe Heemann, Germany
Luuk Hilbrands, The Netherlands
Karl Hilgers, Germany
Rachel Hilton, UK

Eero Olavi Honkanen, Finland
Eric Hoste, Belgium
Zdenka Hruskova, Czech Republic
Jeremy Hughes, UK
Johannes Jacobi, Germany
Stefan Jacobson, Sweden
Philippe Jaeger, UK
Alan Jardine, UK
Achim Joerres, Germany
AnnCathrine Johansson, Sweden
Renate Kain, Austria
Dontscho Kerjaschki, Austria
Markus Ketteler, Germany
Marian Klinger, Poland
Martin Konrad, Germany
Bernhard Kraemer, Germany
Anneke Kramer, The Netherlands
Vera Krane, Germany
Daniel Kraus, Germany
Raymond T. Krediet, The Netherlands
Matthias Kretzler, U.S.A.
Wolfgang Kuehn, Germany
Ulrich Kunzendorf, Germany
Armin Kurtz, Germany
Laura Labriola, Belgium
Maurice Laville, France
Christophe Legendre, France
Jens Leipziger, Denmark
Ewa Lewin, Denmark
Orfeas Liangos, Germany
Francesco Locatelli, Italy
Jan Löffing, Switzerland
Carlo Lomonte, Italy
Merike Luman, Estonia
Bruce MacKinnon, UK
Francesca Mallamaci, Italy
Joanna Malyszko, Poland
Jacek Manitus, Poland
Johannes F.E. Mann, Germany
Patrick Mark, UK
Alejandro Martin-Malo, Spain
Ziad Massy, France
Gert Mayer, Austria
Ellon McGregor, UK
Christopher W. McIntyre, UK
Paolo Mene', Italy
Peter Mertens, Germany
Piergiorgio Messa, Italy
Quentin Meulders, France
Karsten Midtvedt, Norway

Marcus Moeller, Germany
Carl Eric Mogensen, Denmark
Miklos Z. Molnar, Hungary
Leo A.H. Monnens, The Netherlands
Daniela Valentinova Monova, Bulgaria
Eugen Mota, Romania
Heini Murer, Switzerland
Judit Nagy, Hungary
Guy H. Neild, UK
Hans Hellmut Neumayer, Germany
Marlies Noordzij, The Netherlands
Marina Noris, Italy
Michal Nowicki, Poland
Gurbey Ocak, The Netherlands
Klaus Olgaard, Denmark
Yvonne O'Meara, Ireland
Alberto Ortiz, Spain
Ingrid Os, Norway
Mai Ots-Rosenberg, Estonia
Antonello Pani, Italy
Vincenzo Panichi, Italy
Ulf Panzer, Germany
Andreas Pasch, Switzerland
Sonia Pasquali, Italy
E.B. Pedersen, Denmark
Norberto Perico, Italy
Manuel Pestana, Portugal
Harm Peters, Germany
Thierry Petitclerc, France
Luis Piera, Spain
Momir Polenakovic, F.Y.R. of Macedonia
Claudio Pozzi, Italy
Dominique Prié, France
Uwe Querfeld, Germany
Abdul Rashid Tony Qureshi, Sweden
Maria Pia Rastaldi, Italy
Helmut Reichel, Germany
Bengt Rippe, Sweden
Ian Roberts, UK
J. Mariano Rodriguez-Portillo, Spain
Alexander Rosenkranz, Austria
Laszlo Rosivall, Hungary
Boleslaw Rutkowski, Poland
Djillali Sahali, France
Alan D. Salama, UK
Moin A. Saleem, UK
Antonio Santoro, Italy
Francesco Paolo Schena, Italy
Ralf Schindler, Germany
Georg Schlieper, Germany

Andreas Schneider, Germany
Leon J. Schurgers, The Netherlands
Vedat Schwenger, Germany
Francesco Scolari, Italy
Kamil Serdengecti, Turkey
Mehmet Sukru Sever, Turkey
Alison Severn, UK
Neil Sheerin, UK
Kostas C. Siamopoulos, Greece
Justin Silver, Israel
Sandor Sonkodi, Hungary
Søren Schwarz Sørensen, Denmark
Goce Spasovski, F.Y.R. of Macedonia
Coen D.A. Stehouwer, The Netherlands
Vianda Stel, The Netherlands
Peter Stenvinkel, Sweden
Tomasz Stompor, Poland
Dirk Struijk, The Netherlands
Frank Strutz, Germany
Wladyslaw Sulowicz, Poland
Gere Sunder-Plassmann, Austria
My Svensson, Denmark
Vladimir Tesar, Czech Republic
Friedrich Thaiss, Germany
Christian Tielemans, Belgium
Burkhard Toenshoff, Germany
Natalja Tomilina, Russia
Rezan Topaloglu, Turkey
Nicholas Topley, UK
Claudia Torino, Italy
Francesco Trepiccione, Italy
Giovanni Tripepi, Italy
Dimitrios J. Tsakiris, Greece
Photini-Effie C. Tsilibary, Greece
George Tsirpanlis, Greece
Robert Unwin, UK
Cengiz Utas, Turkey
Wim Van Biesen, Belgium
Frank M. van der Sande, The Netherlands
Sabine van der Veer, The Netherlands
Cees Van Kooten, The Netherlands
Karljin van Stralen, The Netherlands
Roland Veelken, Germany
Volker Vielhauer, Germany
Andreas Vychytil, Austria
Martin Wagner, Germany
Christoph Wanner, Germany
Stefanie Weber, Germany
Willem Weimar, The Netherlands
Ulrich O. Wenzel, Germany

Ralf Westenfeld, Germany
Andrzej J. Wiecek, Poland
Christopher G. Winearls, UK
Ralph Witzgall, Germany
Rainer P. Woitas, Germany
Rudolf Peter Wuethrich, Switzerland

Alaattin Yildiz, Turkey
Mahmut Ilker Yilmaz, Turkey
Wojciech Zaluszka, Poland
Gianluigi Zaza, Italy
Martin Zeier, Germany

EIGHT BEST ABSTRACTS

The authors of the abstracts below will receive a diploma.

SO011

THE PRO-PKD SCORE, A NEW ALGORITHM TO PREDICT RENAL OUTCOME IN AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE (ADPKD) **Emilie Cornec-Le Gall**, Brest, France

SO016

TOLVAPTAN-TREATMENT OF ADPKD CONFERS PERSISTENT EGFR IMPROVEMENT: RESULTS FROM THE TEMPO 4:4 EXTENSION TRIAL **Vicente Torres**, Rochester, USA

SO018

EFFICACY AND SAFETY OF MYCOPHENOLATE-MOFETIL VS. LEVAMISOLE IN CHILDREN WITH IDIOPATHIC NEPHROTIC SYNDROME: RESULTS OF A RANDOMIZED CLINICAL TRIAL **Biswanath Basu**, Kolkata, India

SP410

COMBINING RENAL CELLS AND MICRO- AND NANOTECHNOLOGIES: A NEW ROUTE TO THE DEVELOPMENT OF BIOARTIFICIAL PLATFORMS FOR IN VITRO TESTING DRUG NEPHROTOXICITY **Anna Giovanna Sciancalepore**, Arnesano (LE), Italy

MO003

A NON-TRANSCRIPTIONAL ROLE OF HYPOXIA-INDUCIBLE FACTOR (HIF)-1 IN DEFENSE AGAINST DNA DOUBLE STRAND INJURY **Tetsuhiro Tanaka**, Tokyo, Japan

MO026

SURVIVAL OF CALCIPHYLAXIS IN END STAGE RENAL DISEASE PATIENTS FROM THE UNITED STATES RENAL DATA SYSTEM **Lu Huber**, Augusta, USA

MO028

MESENCHYMAL STEM CELLS INDUCED IN VITRO GENERATION OF REGULATORY T-CELLS: A CELL-BASED THERAPY TO PROMOTE TRANSPLANTATION TOLERANCE **Shruti Dave**, Ahmedabad, India

TO031

DECLINE IN ESTIMATED GLOMERULAR FILTRATION RATE AND SUBSEQUENT RISK OF MORTALITY: A META-ANALYSIS OF 35 COHORTS IN THE CKD PROGNOSIS CONSORTIUM **Josef Coresh**, Baltimore, USA

Eight Best Abstracts presented by Young Authors

The authors of the abstracts below will receive a grant of EUR 1,000, free congress registration and a diploma.

SO011

THE PRO-PKD SCORE, A NEW ALGORITHM TO PREDICT RENAL OUTCOME IN AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE (ADPKD) **Emilie Cornec-Le Gall**, Brest, France

SO018

EFFICACY AND SAFETY OF MYCOPHENOLATE-MOFETIL VS. LEVAMISOLE IN CHILDREN WITH IDIOPATHIC NEPHROTIC SYNDROME: RESULTS OF A RANDOMIZED CLINICAL TRIAL **Biswanath Basu**, Kolkata, India

SO020

ENDOVASCULAR RENAL DENERVATION IN DIALYSIS-DEPENDENT RENAL FAILURE TO REDUCE CARDIOVASCULAR RISK **Neil Hoyer**, Dunedin, New Zealand

SP522

OBSERVATIONAL STUDY OF SURVEILLANCE BASED ON THE COMBINATION OF ON-LINE DIALYSANCE AND THERMODILUTION METHODS IN HEMODIALYSIS PATIENTS WITH ARTERIOVENOUS FISTULAS **Néstor Fontseré**, Barcelona, Spain

MO028

MESENCHYMAL STEM CELLS INDUCED IN VITRO GENERATION OF REGULATORY T-CELLS: A CELL-BASED THERAPY TO PROMOTE TRANSPLANTATION TOLERANCE **Shruti Dave**, Ahmedabad, India

MP452

PREDICTORS OF CONGESTIVE HEART FAILURE EVENTS IN INCIDENT PATIENTS ON HEMODIALYSIS - RESULTS FROM THE INTERNATIONAL MONDO INITIATIVE **Viviane Silva**, Curitiba, Brazil

MP622

DONOR TUBULAR PHOSPHATE HANDLING INDEPENDENTLY PREDICTS RECIPIENT OUTCOMES

AFTER LIVING KIDNEY DONATION **Marco van Londen**, Groningen, The Netherlands

TO026

TLR4 LINKS PODOCYTES WITH THE INNATE IMMUNE SYSTEM TO MEDIATE GLOMERULAR INJURY IN PATIENTS WITH TYPE 2 DIABETES AND MICROALBUMINURIA (MA) **Emanuele Parodi**, Genoa, Italy

Best Abstracts presented by Young Authors

The authors of the abstracts below will receive a grant of EUR 500, free congress registration and a certificate.

SO001

CRASHED - A NOVEL RISK STRATIFICATION TOOL FOR PREDICTING AKI **Vijaya Ramasamy**, Wrexham, UK

SO007

BRANCHED-CHAIN AMINO ACID SUPPLEMENTATION ACCELERATES CYST GROWTH IN A MOUSE MODEL OF AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE **Junya Yamamoto**, Sapporo, Japan

SO017

CLINICAL CHARACTERISTICS AND OUTCOMES OF INFANTS ON CHRONIC DIALYSIS **Enrico Vidal**, Padova, Italy

SO025

THE RELATIONSHIP BETWEEN ACCUMULATING TISSUE PHOSPHATE AND CALCIUM IS DEPENDENT ON VITAMIN K STATUS IN EXPERIMENTAL CHRONIC KIDNEY DISEASE **Jason Zelt**, Kingston, Canada

SO026

IMPROVEMENT OF CKD-MBD SERUM PARAMETERS IS ASSOCIATED WITH BETTER SURVIVAL. THE 3-YEAR FOLLOW-UP COSMOS STUDY **Marla Dionisi**, Oviedo, Spain

SO027

CELLULAR AND MOLECULAR MECHANISMS INVOLVED IN VASCULAR CALCIFICATION: THE ROLE OF LAMIN A **Pablo Roman-Garcia**, Oviedo, Spain

SO031

MECHANISMS AND RELEVANCE OF ENAC REGULATION BY EGF: ROLE IN THE DEVELOPMENT

OF SALT-SENSITIVE HYPERTENSION AND PKD **Alexander Staruschenko**, Milwaukee, USA

SO039

ANALYSIS OF ABDOMINAL CT SCANS IN 35 PATIENTS WITH ENCAPSULATING PERITONEAL SCLEROSIS: VALIDATION OF TWO DIAGNOSTIC SCORES AND PREDICTION OF THE MACROSCOPICAL PHENOTYPE **Joerg Latus**, Stuttgart, Germany

SO040

ALANYL-GLUTAMINE IN PERITONEAL DIALYSIS FLUID LEADS TO INCREASED EX-VIVO STIMULATED CYTOKINE RELEASE OF PERITONEAL CELLS **Rebecca Herzog**, Vienna, Austria

SO041

PREGNANCY OUTCOMES IN RENAL TRANSPLANT RECIPIENTS: A SINGLE-CENTRE STUDY **Sokratis Stoumpos**, Glasgow, UK

SP011

ROLE OF EXTRACELLULAR MATRIX DEFECTS IN THE PROGRESSION OF THE POLYCYSTIC KIDNEY DISEASE **Caroline Clerckx**, Paris, France

SP013

RENAL VOLUME IN CHILDREN WITH AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASE **Svetlana Papizh**, Moscow, Russian Federation

SP066

WNT10A OVEREXPRESSION IN KIDNEY FIBROBLASTS INDUCES KIDNEY FIBROSIS IN ACUTE INTERSTITIAL NEPHRITIS **Akihiro Kuma**, Kitakyushu, Japan

SP068

EFFECTS OF CILASTATIN ON GENTAMICIN-INDUCED RENAL DAMAGE. IN VITRO AND IN VIVO EVIDENCE **Alberto Lázaro**, Madrid, Spain

SP102

SYNDECAN-1 IN DECOMPENSATED HEART FAILURE: ASSOCIATION WITH RENAL FUNCTION AND MORTALITY **Tacyano Leite**, Fortaleza, Brazil

SP136

FREQUENCY AND DOSING OF URIC ACID LOWERING THERAPY IN PATIENTS WITH CKD 3 - BASELINE DATA OF THE GERMAN CHRONIC KIDNEY DISEASE COHORT **Markus Heisterkamp**, Hannover, Germany

SP166

SERUM SODIUM RATE OF CHANGE AND VARIABILITY: ASSOCIATIONS WITH SURVIVAL IN INCIDENT HEMODIALYSIS PATIENTS **Joselyn Reyes-Bahamonde**, NY, USA

SP167

EPIDEMIOLOGY OF POTENTIALLY DANGEROUS THERAPEUTIC PRESCRIBING IN HOSPITAL PATIENTS WITH RENAL INSUFFICIENCY **Patricia Blank**, Basel, Switzerland

SP210

REGULATION OF LIVER AND KIDNEY ERYTHROPOIETIN GENE EXPRESSION IN A RAT MODEL OF ANEMIA ASSOCIATED WITH CHRONIC RENAL FAILURE **João Fernandes**, Coimbra, Portugal

SP233

URINARY AND SEROLOGICAL MARKERS OF COLLAGEN DEGRADATION ARE ASSOCIATED WITH DISEASE SEVERITY AND INFLAMMATION IN IGA NEPHROPATHY PATIENTS **Federica Genovese**, Herlev, Denmark

SP235

ABNORMAL URINARY EXCRETION OF NKCC2 AND AQP2 IN RESPONSE TO HYPERTONIC SALINE IN CHRONIC KIDNEY DISEASE. A CASE CONTROL STUDY **Janni Jensen**, Holstebro, Denmark

SP236

VASCULAR CALCIFICATIONS IN CHRONIC KIDNEY DISEASE, DIALYSIS AND KIDNEY TRANSPLANT PATIENTS: MULTIDISCIPLINARY EVALUATION **Silvia Lucisano**, Messina, Italy

SP290

ROSUVASTATIN REDUCES ALBUMINURIA IN AKITA DIABETIC MICE BY P21CIP1 UP-REGULATION THROUGH NUCLEAR FACTOR ERYTHROID 2-LIKE FACTOR 2 ACTIVATION **Chieko Ihoriya**, Kurashiki, Japan

SP291

EFFECTS OF PKGI-DEPENDENT PATHWAY ON GLUCOSE UPTAKE IN RAT CULTURED PO-DOCYTES **Agnieszka Piwkowska**, Gdańsk, Poland

SP293

PRONOUNCED RENAL HYPOXIA ALREADY THREE DAYS AFTER THE ONSET OF TYPE-1 DIABETES IN MICE **Stephanie Franzén**, Linköping, Sweden

SP294

INHIBITION OF THE RENIN-ANGIOTENSIN-ALDOSTERONE SYSTEM IN DIABETIC NEPHROPATHY: FOCUSING ON RENAL FIBROSIS **Sandor Koszegi**, Budapest, Hungary

SP296

THE ROLE OF PKC- β AND MICRORNAS IN DIABETIC NEPHROPATHY **Malte Kölling**, Hannover, Germany

SP339

CORRELATION OF PODOCYTE ULTRASTRUCTURAL CHANGES AND LEVEL OF PROTEINURIA IN PATIENTS WITH DIFFERENT FORMS OF PRIMARY GLOMERULOPATHIES **Ian Proletov**, Saint-Petersburg, Russian Federation

SP413

ECODIALYSIS: IS IT POSSIBLE TO DESIGN AN ECO-FRIENDLY SYSTEM?

Martina Ferraresi, Turin, Italy

SP450

NATIONAL RATES OF ADMISSION, MORTALITY AND POST-PERITONITIS TECHNIQUE SURVIVAL ACCORDING TO DAY OF THE WEEK IN ENGLISH PERITONEAL DIALYSIS PATIENTS **James Fotheringham**, Sheffield, UK

SP451

CLINICAL RELEVANCE OF FREE WATER TRANSPORT AND EFFLUENT BIOMARKERS IN THE DETECTION OF ENCAPSULATING PERITONEAL SCLEROSIS **Deirisa Lopes Barreto**, Amsterdam, The Netherlands

SP481

NONALCOHOLIC FATTY LIVER DISEASE (NAFLD) PROVEN BY TRANSIENT ELASTOGRAPHY IN HEMODIALYSIS PATIENTS; IS IT A NEW RISK FACTOR FOR ADVERSE CARDIOVASCULAR EVENTS? **Ivana Mikolasevic**, Rijeka, Croatia

SP483

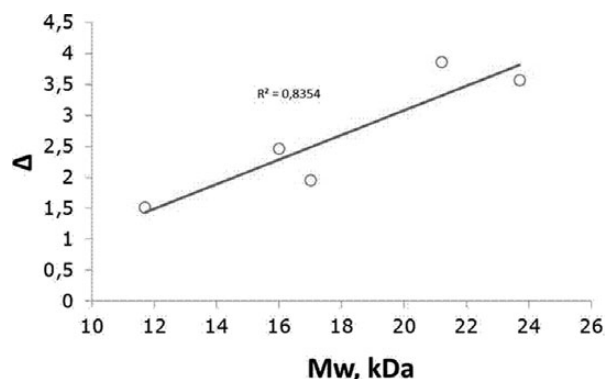
OVERHYDRATION IS ASSOCIATED WITH ENDOTHELIAL DYSFUNCTION IN HEMODIALYSIS (HD) PATIENTS: ROLE OF PENTAXIN 3 (PTX3) AND ROS PRODUCTION BY NEUTROPHILS **Giovanni Pertosa**, Bari, Italy

SP525

REDUCED INFECTION RATES IN A DIALYSIS NETWORK WITH A NOVEL SURVEILLANCE PROGRAMME **Maryam Khosravi**, London, UK

Results: The data of 94 (48 from group A and 46 from group B) patients (53M and 41F) were fully analysed. The median age was 70 (27-92) years and dialysis vintage was 47.2 (7.5-454.6) months. No difference was found in the demographic characteristics and treatment parameters. 164 MID sessions and 161 POST sessions were analysed. A statistically significant difference in RR (%) was found for three MMW molecules: β -2 Microglobulin (β 2M), Complement Factor D (CFD) and Retinol Binding protein (RBP). Values were 80.1 ± 0.4 in POST vs 81.6 ± 0.4 in MID ($p=0.01$) for β 2M; 72.8 ± 0.8 in POST vs 76.4 ± 0.6 in MID ($p=0.0003$) for CFD and 24.1 ± 0.9 in POST vs 30.0 ± 0.8 in MID ($p=0.003$) for RBP. The other investigated molecules, ADMA, Homocystein, Leptin and Myoglobin, shown a better MID RR but it is not statistically significant. The reinfused volume was significantly higher in MID than in POST (average total volume of 43.63 L in MID vs 20.96 L in POST), but also the amount of reinfused volume in MID exchanged in its post dilution stage (estimated around the 2/3 as shown in Maduell publication) is significantly higher (28.8 L in MID vs 20.96 L in POST); this could explain the depuration capability of MID respect POST for the MMW molecules, indeed, was found a linear correlation (R^2 0.83) between the delta differences in RR (RR MID - RR Post) and MW of molecules (Figure 1). No significant differences between MID - and POST-dilution were observed for small MW molecules depuration (assessed by second generation daugirdas Kt/vd), neither for Albumin loss.

Conclusions: MID is superior to remove MMW molecules as compared to POST. This very likely can be related to an higher total amount and efficiency of substituted volume obtained in the MID group as compared to the POST group.



SP412

SP413 ECODIALYSIS: IS IT POSSIBLE TO DESIGN AN ECO-FRIENDLY SYSTEM?

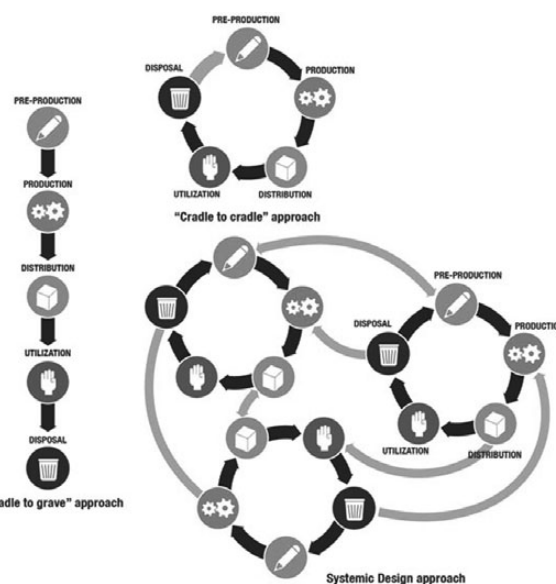
Martina Ferraresi¹, Amina Pereno², Marta Nazha¹, Silvia Barbero² and Giorgia B Piccoli¹

¹University of Torino, Turin, Italy, ²Politecnico di Torino, Turin, Italy

Introduction and Aims: Attention to the environmental impact is still limited in medicine. Chronic Hemodialysis produces about 600000 tons of plastic wastes per year. The economic crisis and the awareness of the ecosystem induced to focus attention on the lifespan of disposables, "from cradle to grave". A new outlook is presently focussed on recycle, that is the subsequent start of new cycles leading to a "from cradle to cradle" model: a "new life" for the waste products (Fig 1). Aim of the study is an analysis of the disposables employed in chronic hemodialysis, for identifying strategies limiting the environmental impact and containing the costs.

Methods: An analysis of the disposables employed on dialysis and of their "final destiny" (the grave) was performed in 3 subsequent bicarbonate dialysis sessions with 3 different dialysis machines. All disposables and packagings were photographed, classified, weighted and analyzed as for type of materials, possibility to recycle, contamination with blood or biological fluids.

Results: Each dialysis session produces between 4 and 6 kg of wastes; it may be divided into about 2 Kg of residual fluids (to be discharged); 2 Kg of "contaminated" wastes (i.e. in contact with blood or fluids) and 2 kg of "non contaminated" wastes. The differentiation is crucial, as the weight of contaminated waste products is the main determinant of disposal cost (approximately 2 Euro/kg in Italy). Furthermore, each dialysis session produces between 0.9 and 1.4 kg of packaging (cardboard and plastic); this is usually discharged separately, but where this procedure is not followed, it adds considerably to the volume and weight of the final wastes. Therefore, a undifferentiated waste collection may produce over 6 kg of waste products per session; the cost (up to 12-14 Euros) corresponds to 20-40% of the cost of the disposables. While all the cardboard and paper wastes are readily recyclable, the plastic wastes (non contaminated) can theoretically enter a dedicated recycle process. In this regard, the wastes may be classified into "families" of different plastic materials, with different compatibility for joint recycling. However, in most of the cases the types of plastic components are not identifiable and separable. Further problems are related with: Packaging oversize: the content of most of the packaging of dialysis materials occupies between 50 and 75% of the space, increasing costs (production, wastes,



SP413

transportation). -Emptying: there are no automated systems for emptying residual fluids after the dialysis session. -Difficult separation of materials: many packages are laminated made of different components. -Difficult separation of contaminated material: there is no clear definition of "contaminated".

Conclusions: Attention to the life cycle of the dialysis disposables may conjugate the attention to our planet, reducing the "mountain" of wastes produced every year; simple tasks, as careful emptying and differentiating between "contaminated" and "non contaminated" wastes may lead to a 20% saving of the costs of a dialysis session. Cooperation with the Industry is needed for designing recycling strategies in keeping with the modern "cradle to cradle" approach.

SP414 SURFACE, A PARAMETER TO CONSIDER IN HIGH CONVECTION VOLUME HDF

Alain Fichoux¹, Nathalie Gayrard¹, Flore Duranton¹, Caroline Guzman¹, Ilan Szwarc², Johanna Bismuth -Mondolfo², Philippe Brunet³, Marie Françoise Serval² and Angel Argilés^{1,2}

¹RD - Néphrologie and Université Montpellier 1, EA7288, Montpellier, France,

²Néphrologie Dialyse St Guilhem, Centre de Dialyse de Sète, Sète, France,

³Service de Néphrologie, Hôpital de La Conception - Université Aix-Marseille, Marseille, France

Introduction and Aims: Convection volume seems to be crucial to the survival benefits proposed for HDF. However, high convection requires increasing transmembrane pressure (TMP) which in turn may change the membrane's behaviour and dialyser's performances. We wanted to characterise the influence of membrane surface area on the physics and on the removal performances of high convection volume on-line post-dilutional HDF.

Methods: Twelve stable dialysis patients were successively treated with Amembris® 1.8 m² and 2.3 m² dialysers, and two high convection flows, one (QUF-optimal) obtained while maintaining the dialysis setting at the maximum in vivo global ultrafiltration coefficient (GKD-UF max) and the other one at the maximum convection flow (QUF-max) limited only by the European Best Practice Guidelines (EBPG) (<30% blood flow / 300 mmHg of TMP) for 1 week each. Continuous sampling of spent dialysate was performed in all dialysis sessions and total mass of urea, creatinine, and total proteins were measured. SDS-PAGE scanning of the removed proteins and ELISA measurements of β -2-microglobulin (B2M), retinol binding protein, lambda light chains of immunoglobulins, α 1-antitrypsin and albumin, were performed.

Results: Increasing from QUF-optimal to QUF-max using the 1.8 m² dialyser resulted in frequent TMP alarms and only 33% of the sessions reached the prescribed convection volume. Increasing the dialyser's surface to 2.3 m² significantly decreased the number of alarms and increased the number of sessions reaching the aimed convection volume (100% at QUF-optimal and 79% at QUF-max). The total amount of urea removed was 545 ± 43 , 473 ± 32 and 491 ± 44 , 471 ± 38 mmol/session in HDF with QUF-optimal and QUF-max respectively for the 1.8 and 2.3 m² surface (NS). The corresponding Kt/V values were 1.77 ± 0.05 , 1.78 ± 0.05 and 1.75 ± 0.04 , 1.75 ± 0.05 (NS). Removal of low mol wt proteins (observed on SDS-PAGE pattern analysis) and particularly B2M did not change in the 4 different conditions (274 ± 35 , 290 ± 35 , 266 ± 24 and 283 ± 35 mg/session (NS)). High molecular weight proteins removal increased with convection, notably for albumin (from 386 ± 57 to 793 ± 158 with 1.8 m² and from 559