**Introduction**

The goal to set up a SRC supported by ISN has been the opportunity to open initiatives to strengthen a pediatric nephrology service, focusing in very early detection and proper treatment of the nephro-urolgy issues avoiding CKD.

**Methods**

1° We created an outpatient clinic Learning center Program supported by nurses, social worker, psychologist and dietitian, who are supporting the families and their children. 2° We promoted among the different groups in the clinic (pediatricians and nurses from PICU, NICU, infectious disease, Transplant team) the opportunities given for ISN program to get update in issues related with detection, prevention and treatment innovations for renal diseases. We created strategies for a) Improve AKI treatment b) Set up a database for CAKUT detected in utoero and its follow up. c) Evaluation of a cohort of patients with intrauterine growth restriction (UGR) at 5 and 7 years old in order to detect early hypertension and/or proteinuria. d) Impulse the Continual Medical Education – CME - among the southwest health population. 3° Clinical design of preventive program detecting at the first and second level of health attention, the most common renal alterations. 4° Introduce a methodology to know the prevalence of renal diseases among Colombian aboriginal communities in the southwest of the country. 5 To support a new pediatric nephrology and New kidney transplant program in Popayan.

**Results**

**A. NATIONAL COURSES CME made by SRC program FVL Cali and Childrens Hospital Boston.**

Dr. John T. Herrin USA, Dr. Ricardo Correa-Rotter, Mexico, Dr. Randall Lou Guatemal.
2° meeting: PIC program Aki related October 2009. Michael Somers, Michael Ferguson and George Schwartz USA.
3° meeting: Heart and bone disease in CKD, Joined to ACONPE (Asoc Colombiana de nefrologia pediatrica) 2010. Carlos Estrada USA, Fernando Santos Spain and Nelson Ora Venezuela.
4° meeting: SRC program joined to colombian society of pediatrics July 2011. Michael Somers, Ghalbe Daouk, John T Herrin, Francisco Flores and George Mazarioges.
5° meeting: CKD in children’s transition through a successful renal transplant October 2012. William Harmon, Paul Harden, Francisco Cano- Chile.
6° meeting: SRC Program 2013. Michelle Baum, Deboe Sherlock, Carlos Estrada USA.
7° meeting: X Latin American Congress of Pediatric Nephrology, Cartagena 2014.
Dr. Ron Shapiro y Dr Carlos Estrada (pediatric adrenaliology).
8° Annual Pediatrics congress in Popayan, Cauca, Colombia 2015.Dra Maria Ferris, SusanMarco.
Pedictric congress Popayan 2016,2017,2018,2019
9° meeting: National congref of nephrology in Pereira Colombia 2016
Dr Helmut Renkne, Dr Jaime M Restrepo
10° meeting: Sensitization in Txs patients. April 2018 Cali Dr Jaume Martorell Spain and Jose Beltran Colombia
11° meeting: A, B and C in Kidney Transplantation.
Popayan October 2018.
Dr Milagros Samaniego.
12° meeting National Congress of ACONPE Barranquilla October 2018 Dr Guido Filler Canada
13th meeting Second academy meeting of Immunology and Transplantation laboratory 27-28 August 2019.Dr Andres Jaramillo USA

**B. LOCAL COURSES IN PREVENTION**

2° Eight training courses& on RRT. 2009-2012. Directed to PICU nurses.
3° Bimonthly Education meeting. Directed to patients on RRT Supported by Baxter-RTS
5° Monthly interdisciplinary evaluation. To patients with myelodisplasia and their families since 2014.
6° Annual Camps since 2016, outside Cali **

**C. VISITS TO BOSTON CHILDREN’S HOSPITAL**

Short training visit (1 month): Two bacteriologist (B&W Hospital), 9 nurses (PICU, Renal Unit CHB).
Visiting scholars (2-3 months): Four pediatric intensive, 4 pediatricians, 2 urologists, 1 pharmacologist, 1 pediatric infectiologist, 1 pediatric nephrologist, 1 adult rheumatology fellowship, 1 adult nephrologist, 2 pediatric nephrology fellows, 1 genetist and one epidemiologist.

**D. VISITS FROM BOSTON CHILDREN’S HOSPITAL**

Auditorship and administrative visits John T Herrin 2008 and 2011.
ISN Ambassadors Program: Helmut Renkne (2012). Maria Ferris from UNC USA 2015
Mara Medereos. From Mexico 2016
Guido Filler from Canada 2018
Maria Somers, Michael Ferguson and George Schwartz USA.

**E. RESEARCH ACTIVITIES**

1. Relationship eg gestational age and birthweight with novel urinary biomarkers renal fuction measured at 5 years of age in childrens of follow program kangaroo mother house alfia in Cali, Colombia.
2. AKI in PICU’s Hospital in southwest,Popayan-Cali.
9. Retrospective evaluation of AKI 1996-2002 in NICU.
10. Adverse drug’s reaction to nephrotoxic drugs in pediatric non critical inpatients.
12. Retrospective study to assest the risk of acute kidney injury(CAKUT) in pediatric patients hospitalized at a fourt heal level, in Cali Colombia. Abstract presented WCN 2013.
15. Prenatal detection of CAKUT.

**F. ESTABLISHED PROGRAMS**

1. AKI network in PICU in Popayan.
2. Myelodisplasia program.
3. Transition program for adolescents with kidney transplant.
4. Pediatric kidney transplant program. And a new TRANSPLANT PROGRAM AT POPAYAN with 2 pediatric nephrologists, 2 transplant surgeons supported by FVL and Hospital San Jose Popayan.
5. Monitoring a solitary kidney program
7. AKI network at NICU in Popayan 2018-2019

**G. AWARDS AND HONOURS**

1. ACONPE 5° Congress 2012: Second place in Poster Presentation: "Renal Pediatric Transplant in Cali, Colombia". Third place in Poster Presentation: “AKI Prevalence in PICU Fundacion Valle del Lili”.
3. Acknowledgement to the development of Pediatric Nephrology in Colombia and Latin-America.
4. Second place in Poster Presentation Category at the National Pediatric Rheumatology Congress with the study: “Pediatric Pauciimmune vasculitis: report of three cases."
5. First place in oral presentation at National pediatric residents Congress Bogotá 2010

**ACHIEVEMENTS AND SUCCESSES:**

1. STC PROGRAM 2015
2. REGIONAL TRAINING CENTER PROGRAMS 2016
3. REINAL GENETIC LABORATORY AT BOSTON CH supported by Dr Friedelrich Hildebrand
4. IPTA Outreach program 2012.

**PLAN FOR THE FUTURE**

1. TO SET UP A NEW TRIO PROGRAM IN THE NORTH OF COLOMBIA!

**CONCLUSIONS:** The Sister Renal Center Program, under the orientation of the Boston group allowed us to work on the most important needs of the Pediatric - Adult Nephrology and Transplant programs in our region. Based on retrospective studies we established the most frequent causes of acute and chronic renal diseases. This also made possible to design prospective studies on AKI, thinking in improving the renal replacement therapy and also the integral management of patients in PICU.
Sister Renal Center Program
“A Level” 2007-2013

John T Herrin - Ghaleb Daouk - Jaime M Restrepo
Pediatric Nephrology

Children’s Hospital Boston- Fundación Valle del Lili Cali
SRC-TRIO 2014-2019 “second year A level”
Hospital Susana Lopez de Valencia Popayan

STC 2016-20019 “first year B level”
Children’s Hospital Boston- Fundación Valle del Lili Cali
The success: To have an permanent Educational Program

- Hipertension in newborn
- IUGR
- Dr. Jose F Delgado
- Dr. Raul Astudillo
- Dr. Caleb Nelson
- Detection in útero
- Perinat. FVL
- Urology
- Imagenology
- Protocol
- Perinatology
- and urology
- Genetics and
- CAKUT
- Acute
- Kidney Injury

- Dr. Michael Ferguson
- Dr. O. Ramírez
- Dr JM Restrepo
- Perinat. FVL.

- Dr. Michael Ferguson
- Dr. O. Ramírez
- Dr JM Restrepo
- Perinat. FVL.

- Dr. Michael Ferguson
- Dr. O. Ramírez
- Dr JM Restrepo
- Perinat. FVL.

- Bone disease markers
- Children CRI (predial, dialysis, postransplant).
- Ped. Endocrinology and Ortopedics
- Dr. H. Juppner
- Dr. G Daouk
- Dr. Liliana Mejia
- Dr. Luis A Gallon

- Dr. Ma Teresa Agudelo
- Dr. Michael Ferguson
- Dr JM Restrepo

- Dr. F Hildebrand
- Dr. G Daouk
- Dr. H Pachajoa
- Dr JM Restrepo

- Protocol
- Perinatology
- and urology
- Genetics and
- CAKUT
Regional courses, congress and symposio made by ISN SRC and STC programs FVL Cali and Childrens Hospital Boston.

3° Meeting: Heart and bone disease in CKD, Joined to ACOMEPE( Asoc Colombiana de nefrologia pediatrica) 2010. Fernando Santos, Nelson Orta and Carlos Estrada.
4° Meeting: SRC program joined to colombian society of pediatrics July 2011. Michael Somers, Ghaleb Daouk, John Herrin, Francisco Flores and George Mazariegos
5° Meeting: CKD in children’s transition through a succesful renal transplant October 2012. William Harmon, Paul Harden and Francisco Cano
N= 34 ISN Educational activities

VISITS TO BOSTON CHILDREN`S HOSPITAL and B&W Hospital

• **Short training visit (1 month):** Two bacteriologist (B&W Hospital), 9 nurses (PICU, Renal Unit BCH), 1 dietitian, 1 psychologist and 1 renal pathologist.

• **Visiting scholars (2-3 months):** Four pediatric intensivist, 4 pediatricians, 2 urologists, 1 pharmacologist, 1 pediatric infectologist, 1 pediatric nephrologist, 1 adult rheumatology fellow, 1 adult nephrologist, 2 pediatric nephrology fellows, 1 genetist.

• One pediatric epidemiologist visiting 2 months to Canada supported by STC and Guido Filler

• One pediatric nephrologist nurse visiting 1 month Pediatric Renal unit at Saint Jue de Dieu in Barcelona Spain
Transition program
SOUTH WEST MIELODISPLASIA CLINIC
1. Relationship of gestational age and birth-weight with novel urinary biomarkers of renal function measured at 5 and 7 years of age in children on follow up at program Kangaroo Mother House Alfa Cali Colombia.

Jaime M Restrepo, Juan C Arias, Michael Ferguson, Adriana Villegas, Oscar Ramírez

• **Budget**: 60,000 USA dollars

- ISN : 10,000 dollars

- Dra. Wendy Hoy - Australia: 10,000 dollars

- Dr. Joseph Bonventre, BWH: 20,000 dollars

  - We finished the first part in patients five years of age, we are preparing to the second part with the same patient’s cohort 12 years old at present.

  - THE PAPER RELATED TO FIRST PART WAS SENT TO 2 ISN REVIEWERS: GUIDO FILLER AND VALERUE LUYCKX.

ISN Sister Renal Center – TRIO

10 000 US dollars
To create a new Pediatric nephrology fellowship 2016

Adult nephrologist

PICU-ICU

Pediatric Nephrologist

To surgery

Pediatric surgery

Perinatology

Tx surgery

Tx surgery

To create a new Pediatric nephrology fellowship 2016
To set up a kidney transplant group at south west of Colombia

( Popayan and Pasto)
Factores de riesgo asociados a anormalidades congénitas renales y de la vía urinaria detectadas prenatalmente en una ciudad del suroccidente colombiano. Un estudio de casos y controles.

Risk factors associated with Congenital anomalies of the kidney and the urinary tract detected prenatally in a city of Colombian southwestern. A cases and controls study.
Prevalence of urinary tract infection in children and associated risks in TOTORO aboriginal population of Totoro- Totoró, Cauca – Colombia
New SRC-TRIO with Pasto (Nariño) or Bucaramanga (Santander in the northeast of Colombia)
REGIONAL TRAINING CENTER ENDORSEMENT
IS AWARDED TO
THE FUNDACION VALLE DE LILI, Cali, Colombia
VALIDITY: 2017-2019

ADEE LEVIN
ISN PRESIDENT

DAVID HARRIS
ISN PRESIDENT-ELECT

JOHN FEEMALLY
ISN PROGRAMS CHAIR
**Next steps 2020 – 2021**

**Ecuador and Bolivia**

1. First Congress of Pediatric Nephrology Quito Ecuador 2015  
   Done
2. Second Congress of Pediatric Nephrology Quito Ecuador  
   Febr-March 2019  
   supported by ISN, IPNA and ALANEPE  
   Done
3. First Congress of Pediatric Nephrology Cochabamba Bolivia  
   August 2020  
   as Teaching course  
   Supported by ISN, IPNA  
   and ALANEPE  
   pending
4. Third congress of Pediatric nephrology Cuenca Ecuador 2020  
   as Teaching course  
   supported by ISN and IPNA  
   pending

Two nurses and 2 pediatric nephrologists on application to do an update at FVL nephrology service