ARPKD/CHF Alliance News

Autosomal Recessive Polycystic Kidney Disease and Congenial Hepatic Fibrosis Alliance

Message from the President

"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has." *~Margaret Mead*

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Spring 2003

Dear ARPKD/CHF Families,

On behalf of the ARPKD/CHF Alliance I would like to express my sincere appreciation to everyone who supported the ARPKD/CHF Alliance in 2002/2003 by participating in the Blood Bank and Research Survey (hence the **ARPKD/CHF Alliance Central Repository**), by responding to our donation letter in November and for those who coordinated fundraising activities. 2002 was our first full year functioning as a nonprofit organization.

A lot has happened in that time period! We have completed our initial strategic plans and have moved into phase II! We are realizing one of our initial major goals, the establishment of the **ARPKD/CHF Alliance's Central Repository**, funded entirely by the ARPKD/CHF Alliance. One year ago we sent out a letter to families requesting participation, the response was incredible, we mailed over 150 research kits. For anyone who would like to participate, it is not too late. Blood draws can be done at your convenience, during routine physician visits. Participation enables and encourages our research to move forward, to understanding our gene, gene products, defect(s), and other properties. We are working towards international collection, and at this point in time are able to collect blood within the continental U.S. and South Africa.

Gene discovery is the very first step in understanding our gene, how it works, what factor(s) cause it to work improperly, only now can we begin to understand the specific processes which are abnormal in this disease.

In July 2002, the ARPKD/CHF Alliance had the honor to present the **ARPKD/CHF Alliance Registry** at the PKD Strategic Planning meeting *(*presentation and summary will soon be available at www.arpkd.org), sponsored by the National Institute for Diabetes and Digestive and Kidney Diseases (NIDDK). We provided public awareness – via the *Washington Post*, distributed ARPKD/CHF Alliance pamphlets as part of the "Genetic Alliance" exhibit during "The American Society of Human Genetics" conference in Baltimore, Maryland, October 2002, and were part of the poster sessions during this conference. Our brochures were met with great interest from medical professionals, researchers, and lay advocacy group leaders alike. Thank you Genetic Alliance for giving us this opportunity!

In November 2002, the ARPKD/CHF Alliance participated in a consortium conference called "Consumer-Researcher Partnerships: Benefits, Challenges and Strategies". This focused on building effective consumer-research partnerships in developing meaningful and robust research of relevance, sponsored by *The Consortium*. Then, on January 11-12, 2003 the ARPKD/CHF Alliance participated in the "Gaining Access to Research Resources," a regional training workshop organized by the National Organization for Rare Disorders, for National Patient Support Organizations in New York City, and sponsored by Office of Rare Disorders (ORD)/National Institutes of Health (NID), Center of Biologics Evaluations and Research (CBER), Food and Drug Administration (FDA), and Department of Health and Human Services (DHHS). This was an exceptional opportunity! Finally, on March 25, 2003, the ARPKD/CHF Alliance will also be attending the "Genetics of Rare Disease, Window to Common Disorders" conference in Washington, DC.

The ARPKD/CHF Alliance connects parents and affected persons whenever possible through personal contact and referrals to ARPKD email or listservs (more information on page 15). Our volunteer Bereavement Coordinator addresses issues of newborn death, and we have recently established a Bereavement Task Force, a "think tank" to assemble needed information and resources for parents. During this year, the ARPKD gene was fully isolated and identified; yet this is the beginning. Gene discovery is the very first step in understanding our gene, how it works, what factor(s) cause it to work improperly, only now can we begin to understand the specific processes which are abnormal in this disease. There is much work ahead in gaining a comprehensive understanding of our disease process, but we remain hopeful.

Many lay advocacy organizations have been very effective change agents.

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Inside this issue:

ARPKD/CHF Alliance

P.O. Box 70, Kirkwood, P.A. 17536, Phone/Fax: 717-529– 5555,
Email: info@arpkd.org, www.arpkd.org

The ARPKD/CHF Alliance's vision began with: improve the lives of those affected by Autosomal Recessive Polycystic Kidney Disease and Congenital Hepatic Fibrosis. Our mission grew from that simple, yet meaningful purpose. Our mission is to educate, advocate, support and advance research specific to ARPKD and Congenital Hepatic Fibrosis.

(Continued from page 1)

Message from President

They are unsurprisingly passionate, devoted and "fired up" for their cause, and nothing is more altruistic than motivated parents. The ARPKD/CHF Alliance is no exception! To name a few, PXE International (see page 4), Chromosome 18 (founded by stay-at-home mom who obtained Ph.D. to research disorder), the Odone's (parents portrayed in the movie "Lorenzo's Oil"), and the "A-T Project" with a database of 380 affected patients and an annual budget of 1.9 million directed towards research. There are many, many other organizations making significant and valuable contributions, created by committed parents. Each is dedicated and unique with varying degrees of services, but all have something in common, they have brought attention to a disease and accelerated research in the process, ultimately helping individuals and families cope. The ARPKD/CHF Alliance is reaching out internationally, and our efforts are paying off!

We are excited about the future. It is not a matter of being Pollyanna, but about being enthusiastic for what the future will bring, and the future is a place we are creating now. Stay tuned – there is much more to come.

Sincerely,

Colleen Zak

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BRIEF OVERVIEW OF ARPKD AND CHF:

Autosomal Recessive Polycystic Kidney Disease (ARPKD) is a rare genetic disorder that affects approximately 1:6,000 to 1:40,000 persons in the general population, depending on the source of reference. It is a chronic and progressive disease that causes eventual kidney failure and liver abnormalities, hence Congenital Hepatic Fibrosis (CHF).

CHF has the potential to cause severe clinical liver complications. The age spectrum for onset of symptoms is from birth to adolescence, seldom adulthood. ARPKD is commonly diagnosed early in life; approximately 50% are diagnosed prenatally. There is no cure and early newborn death occurs up to 50% of the time, most often not from kidney failure, but from pulmonary hypoplasia (underdeveloped lungs). If ventilatory support is offered and the newborn period is survived, then the chances of survival increase to good. There is potential for an excellent quality lifestyle with medical management.

This information is located on our extensive website. If you haven't visited lately, please do so at http://www.arpkd.org.

President Bush Signs the Rare Diseases Act into Law

On November 7, 2002, President George W. Bush finalized a victory for the rare disease community when he signed the *Rare Diseases Act (H.R. 4013) and the Rare Diseases Orphan Product Development Act (H.R. 4014)* into law. The new legislation was originally introduced in August 2001 by Senators Edward Kennedy (D-MA) and Orrin Hatch (R-UT) as the Rare Diseases Act of 200 (S.1397). The landmark new law nearly doubles the budget for the Office of Rare Diseases (ORD) at the National Institutes of Health (NIH), authorizes the ORD to award money for research into rare diseases, and doubles the funding for the Food and Drug Administration's Orphan Products Research Grant program. The legislation addresses a long-standing unmet need to develop new treatments and cures for rare disorders.

Rare "orphan" diseases are defined as medical conditions affecting fewer than 200,000 Americans. Although the incidence of each disease is small, combined together approximately 25 million Americans suffer from at least one of the known 6,000 rare disorders.

Listed among the 6,000 rare medical conditions are sickle cell anemia, Tay-Sachs disease, hemophilia, Fanconi's anemia, Tourette syndrome, Lou Gehrig's disease (amyotrophic lateral sclerosis) and the Bubble Boy Disease (severe combined immune deficiency). The majority, however, are obscure diseases such as Landau Kleffner Syndrome, Wilson's disease, tyrosinemia, Canavan disease, or Creutzfeldt-Jakob disease. Some of these illnesses affect only a few hundred people worldwide.

The landmark new law nearly doubles the budget for the Office of Rare Diseases (ORD) at the National Institutes of Health (NIH).

"Not since the passage of the *Orphan Drug Act* in 1983 which created financial incentives and research grants, has legislation been enacted that has such a profound and lasting impact on the millions suffering with rare diseases," said Abbey Meyers, President of the National Organization for Rare Disorders (NORD). "The entire rare disease community has worked so hard for this momentous day," Meyers continued.

For additional information: http://www.rarediseases.org/washington/bush_signs

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The ARPKD/CHF Alliance signed on for this bill. Thank you Diane Dorman for your tremendous efforts on behalf the ARPKD/CHF Alliance, National Organization of Rare Disorders and the entire rare disease community!

THE EVOLUTION OF AN UNLIKELY PARTNERSHIP BETWEEN RESEARCHERS AND CULTURALLY DIVERSE FAMILIES: LESSONS LEARNED

by Betsy Santelli, The University of Kansas
Ursula Markey and Agnes Johnson, Grassroots Consortium on Disabilities
Rud Turnbull and Ann Turnbull, The University of Kansas

Historically, partnerships between large, well-established organizations in the dominant culture and smaller, newly developing, community-based efforts on behalf of underserved families have been beset with challenges stemming from cultural differences, varying priorities, and a lack of trust (Kritek,1994). Kritek (1994) describes how cultural discrimination results in people attempting to negotiate at an *uneven table* -- one to which under-served families and representatives of veteran organizations, such as university-based researchers, come, ostensively with equal power but actually with highly disparate power. Parent directors of community-based family support centers operate within the context of un/under-funded community settings and provide support and information to families with multiple challenges. Their efforts often go un-noticed and unrewarded. Researchers often operate within the context of well-funded university settings and conduct research as one of their many academic requirements and expectations. Universities reward their published research with promotions and tenure. And more often than not, and sometimes with just cause, culturally and linguistically diverse families believe that researchers come to their community, conduct their research, and then leave -- all without creating any direct and immediate benefit to the families.

For entire article visit http://www.consortiumnrrtc.org/confcallform.html

INTRODUCTION: A PARTNERSHIP TO FIND

Over the last decade, individuals with genetic conditions, lay advocacy genetics groups, and research laboratories have engaged in a variety of partnerships. These partnerships for genetic disorders ranging from Huntington disease to breast cancer to cystic fibrosis (Weiss and Mackta, 1996). In some cases, these lay/professional relationships are leading to productive interactions that benefit affected individuals, the advocacy group, and the research investigators. There is potential in the partnerships to develop critical mechanisms and provide comprehensive support for affected individuals. This development can be catalyzed by collaboration, even while principal investigators directing research efforts focus on discrete, immediate goals and lay groups meet the divergent needs of a disparate population of affected individuals.

For many genetic disorders, particularly rare ones, variable penetrance and expressivity exacerbate the difficulty of understanding the natural history, epidemiology, and pattern of inheritance. Genetic diseases in general need representative studies. The ability to identify and collect information from a large cohort with a wide range of phenotypic expression accelerates accurate characterization of the disorder. However, it is difficult for researchers to dedicate sufficient resources to locate enough individuals to establish a large cohort and also to meet their needs once identified. As a result, researchers often conduct research on small subsets of the affected population asking individuals with the disease and their families to donate multiple times to various research studies. This results in multiple DNA collections in a variety of laboratories. Some dynamics of the research enterprise, particularly the need to publish unique results and to compete for funding, discourage sharing samples or information and the resulting small cohorts make positional cloning and genotype/phenotype correlations difficult.

With the help of a lay advocacy groups, it is possible to collect coded samples and retain a high level of protection for the participants. The advocacy group can be involved on all levels, from sending kits to families to managing the database of available samples and a directory of the corresponding pedigrees.

TABLE I. Functions Performed by PXE International

- Initiate and fund research projects – genetic/molecular/epidemiology/clinical
- Integrate numerous databases, registries, pedigree collections and epidemiology studies to over 2,500 affected individuals
- Support and maintain privately held PXE International Blood and Tissue Bank – 12,000 pedigrees, DNA samples, tissue samples
- Expend 80% of operating budget on direct and indirect costs of research
- Sponsor research and lay information meetings to encourage expedient definition of problems and to open new avenues for further research
- Present abstracts, posters, and lectures at medical and research meetings
- Write grants and apply for funding, as co-investigators with research labs from foundations and NIH
- Participate in alliances and coalitions for increasing public awareness
- Advocate for the NIH and medical institutions in Congress and public forums
- Coordinate and facilitate collaborations between laboratories, offering them both a safe information repository and chan nel through which to share information

What people are saying ...

"The ARPKD website (http://www.arpkd.org) has been a tremendous source of knowledge for me...the doctors yesterday thought that I had a medical background!"

"Thank you once again for the website, wow, there is so much information here!!"

"What an important thing this site is, and long overdue."

"I want to thank you for the quick turn around. I have so far received responses from 4 families and will be writing to them directly. Only one of them said it (transplant) was scary - but not any longer."

"Thanks again for all you do. I pray that God blesses you and the families you minister to."

ARPKD Social

by Kellie Gaughan

On September 28th. my husband, Mike and I and our 4 year old twins, set out from Northeast Philadelphia to a campground in Lancaster Pennsylvania. We were headed to SPRING GULCH CAMPGROUNDS. The trip is about two hours from our home.

Always running a little late, and unsure of what we were getting into, we arrived at a beautiful campground. Signed in at the welcome house, where we were given directions to the area where the ARPKD Picnic was being held. Approaching the area, we saw several families playing softball. By this time my sons where eager to get out of their car seats and join the ball game.

My son Michael was diagnosed in March of 2002, after almost a year of being unable to figure out what was causing his enlarged spleen. So with a recent diagnosis, I wasn't sure what the picnic would be all about. It was wonderful! After introductions, my sons took off, only returning to ask if they could go to another area of the grounds for the many activities. We played in the playground, miniature golf, kickball, fishing, and we all went on a hayride.

Our hosts, Chris and Brian, had prepared a lunch of hoagies, pizza and salad, which everyone enjoyed. The kids sat just long enough to clear their plates and where off again to the sand box. This gave the adults time to chat. Find out

ARPKD/CHF families enjoying a hay ride

where everyone was from…. New York, Delaware, different areas of Pennsylvania.

The day was wonderful, my sons met new friends, and I found out so much more about ARPKD; just by finding out what other families are going through and how they handle each new problem that arises. I would like to thank everyone that organized this event and look forward to the next picnic.

Editor's Note: Next ARPKD Social is scheduled for September 20, 2003, at Spring Gulch (www.springgulch.com), which will include a fundraiser, TBA. Mark your calendars! More information will follow.

ARPKD/CHF ALLIANCE SPONSORED RESEARCH

The ARPKD/CHF Alliance is offering the opportunity to participate in a research project to provide a better understanding of Autosomal Recessive Polycystic Kidney Disease (ARPKD) and Congenital Hepatic Fibrosis (CHF).

The purpose of this study is **twofold:**

1) To assist in identifying the molecular biology factor(s) causing APRKD and CHF.
2) To more accurately describe the disease process, course, progression and outcomes, and its impact on affected individuals.

We are collecting blood samples from individuals affected by this disease, their immediate blood relatives, and in particular affected siblings. This blood may help us to understand the genetic cause and factors causing Autosomal Recessive Polycystic Kidney Disease and Congenital Hepatic Fibrosis.

The ARPKD/CHF Alliance's Blood Bank Donor Program provides a centralized storage and research distribution to facilitate worldwide investigation into the genetic causes of the Orphan Diseases Autosomal Recessive Polycystic Kidney Disease (ARPKD) and Congenital Hepatic Fibrosis (CHF). This Bank is unique; it is the only international collection and public source of genetic material available to ARPKD & CHF researchers/ research projects approved by the ARPKD/CHF Alliance Review Subcommittee. Researchers have limited time and resources; we provide coordination of retrieval, storage, and distribution of samples. The ARPKD/CHF Alliance's Blood Bank will not be restricted or exclusively controlled by a single scientist or group of researchers, but owned, managed, and funded by the ARPKD/CHF Alliance, by the people it directly affects, available to any number of research projects demonstrating merit; making possible the opportunity of maximal scientific cooperation, collaboration, and dissemination of scientific information as rapidly as possible. This enables and promotes a time sparing approach to research, and allows us to focus on what is needed to improve the quality of life for the ARPKD/CHF population, with expediency and efficiency.

Further study and focused attention is needed to better understand the disease process at the molecular, cellular, and human level, from the prenatal phase into adulthood, this will have paramount importance in better understanding the condition and potential treatment.

We offer the opportunity to complete a self-administered survey, to provide a better understanding of the disease process, course, progression and outcomes, its impact on affected individuals; in order to better evaluate the relationship between ARPKD and CHF, family and genes. This will provide many important details. Our basic understanding of ARPKD and CHF affecting the population is limited, little is known about the clinical course. Previous estimates of true population occurrence, and morbidity are limited by sample size, do not include quality of life issues that have paramount importance to families, and lack the complete range of experienced clinical symptoms and complications. There is a gamut of symptoms, with a wide range of severity, without any understanding of why some individuals die shortly after birth and others live into adulthood. There is a complete absence of parameters or measurements available to professionals and nonprofessionals in determining patterns, sequence, or patient outcomes.

Further study and focused attention is needed to better understand the disease process at the molecular, cellular, and human level, from the prenatal phase into adulthood, this will have paramount importance in better understanding the condition and potential treatment. For additional information and details, please contact the ARPKD/CHF Alliance at 717-529-5555 or info@arpkd.org.

Interview with Ellis D. Avner, M.D.

By Colleen Zak -- October 2002

Describe and expound on our PKD Center of Excellence. What are the Center's purpose, goals, and time frames?
Our Rainbow Center for Childhood Polycystic Kidney Disease is one of the four NIH-funded Interdisciplinary Research Centers of Excellence in the United States. It is the only such Center focused on *childhood polycystic kidney disease*. As a funded research program, it focuses on the basic molecular and cellular pathophysiology of autosomal recessive polycystic kidney disease (ARPKD), and is designed to identify *pre-clinical targets* for potential drug therapy in a number of experimental model systems. It is a collaborative research enterprise of the Departments of Pediatrics, Physiology and Biophysics, and Genetics at Case Western Reserve University. In addition to our funded research center, an outgrowth of our Rainbow Center for Childhood Polycystic Kidney Disease has been a comprehensive clinical center which serves children with all forms of polycystic kidney disease. This Center includes the collaborative expertise of pediatric nephrologists, pediatric gastroenterologists (who specialize in the hepatic complications of ARPKD), pediatric urologists, pediatric geneticists, pediatric radiologists, pediatric dieticians, pediatric social workers, and pediatric nurse practitioners, clinical services offered by our Center include comprehensive evaluation (often second opinions for referral pediatric nephrologists), diagnostic testing, and the development of therapeutic care plans. Our goal is to return patients to their local pediatric nephrologists with comprehensive management plans which can be implemented and followed locally. Both the research and clinical programs are housed at Rainbow Babies & Children's Hospital of University Hospitals of Cleveland. Our scientific Center is currently funded through 2004, and we are quite hopeful that the exciting results of our Center work to date will place us in an excellent position for competitive federal renewal after that time.

Is our research directed at both ARPKD and ADPKD? If our research pertains to both forms of PKD, what percentage of time and resources are committed to ARPKD, and to CHF?
Although our Center and many of our experimental models are focused on ARPKD, many of the common features of ARPKD and ADPKD in children make both diseases areas of active research and clinical study. Approximately equal numbers of children with ADPKD and ARPKD are seen through the clinical arm of our program.

Who is currently working on understanding the functions and characteristics of fibrocystin, a different protein from polycystin, which is associated with PKD1 and PKD2 or ADPKD?
The identification of PKHD1, the causative disease gene for ARPKD and the delineation of its predicted protein product, was reported by two groups earlier this year. We were pleased to be a collaborative part of one of these research consortiums. A number of laboratories, including those in our own program, are studying the PKHD1 gene as well as its protein product.

What are the next steps to help understand our gene, how it functions, what affects it, how will this assist us in improving the quality of life?
Over the next year, I suspect a number of valuable reagents for experimental study (mouse models, antibodies) will be developed which will add new insight into not only the pathophysiology of ARPKD, but possible avenues for disease-specific intervention. The answer to this question is somewhat dealt with in the previous answer. By understanding the gene and protein it encodes, which when mutated, causes ARPKD, we may begin to understand the specific developmental and cellular processes which are abnormal in this disease.

The ultimate cure for this disorder will necessitate definitive gene replacement therapy which is not a current therapeutic possibility or realistic expectation in the near future.

There is a difference between treatment and cure. . .
Once we have disease-specific targets, we will be able to develop a number of possible therapeutic interventions to correct the basic abnormality at the gene and/or protein level with specific pharmaceuticals. The potential for gene therapy in the future remains possible, but quite problematical given the size and complexity of the PKHD1 gene. Currently, polycystic kidney disease is a chronic disorder for which there are a variety of non-specific treatments. These include control of many symptoms and complications (i.e., pain or hypertension), as well as dialysis and transplantation for end-stage renal disease. Patients with ARPKD and progressive hepatic fibrosis with portal hypertension can also be treated with medications, shunting procedures, and eventually hepatic transplantation. Many of therapies we currently have under development will correct abnormal cellular behavior in ARPKD with an initial goal to decrease progressive cyst formation and hepatic biliary abnormalities and fibrosis. The ultimate cure for this disorder will necessitate definitive gene replacement therapy which is not a current therapeutic possibility or realistic expectation in the near future.

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Can you please describe your role as Primary Investigator and Director of a PKD Center of Excellence, what is your typical day like?

My role as Principal Investigator and Director of the PKD Center of Excellence is that of an academic pediatric nephrologist and does not differ substantially from my past 22 years of focus on research and clinical care of children with polycystic kidney disease. In addition, as a Chairman of a top-ranked research-intensive Pediatric Department of 150 full-time faculty, and Chief Medical Officer of one of the nation's finest children's hospitals, I have no trouble filling my 80 to 100-hour work week. I like to think that I have no typical day, but rather that every day presents new and exciting opportunities. Whether I am discussing a difficult case with my faculty or residents; reviewing laboratory data or manuscripts; working on the development of new research or clinical protocols; teaching and mentoring medical students, pediatric residents in training, pediatric nephrologists and post-doctoral research trainees; dealing with hospital administrative issues; or focusing on a number of my national and international pediatric leadership positions creates a fascinating mixture which defies standardization. Any day which does not present a number of new challenges or exciting opportunities leaves me reasonably unsatisfied. We have a great deal to do in developing appropriate treatments for childhood polycystic kidney disease, as well as a number of other childhood illnesses.

Ellis D. Avner, M.D. is Professor and Chairman at the Department of Pediatrics School of Medicine Case Western Reserve University, Chief Medical Officer Rainbow Babies & Children's Hospital University Hospitals of Cleveland, in Cleveland, Ohio.

Health Systems Change: Realizing Patient Potential

Patients offer greater potential than any other stakeholder group for catalyzing positive fundamental change in the American healthcare system. Powerful because of their number, patients are largely unburdened with the conflicts of interest that stymie deep changes. Further, and perhaps sometimes even more crucial, they are frequently motivated to make demands with a persistence and energy devolving from the desire to save their loved ones or themselves from disability or death. Often the purpose is to bring about accountability on the part of the healthcare system and to create meaning from the death of a child, spouse or other relative. These are powerful motivators. Additional Information can be found at http://www.*healthcommons.org*

by Richard Rockefeller, MD, Founder and President of the Health Commons Institute

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How can your everyday shopping benefit the ARPKD/CHF Alliance?

Most of us feel guilty when we shop. We buy a new raincoat because we like the color, and then it never rains. We spend too much money on shoes or a new computer, and end up feeling bad. At www.iGive.com/ARPKD, you can buy the items you've always wanted– like that CD box set, expensive cologne, or the oversized, coffee-table photography book you've had your eyes on, only without the guilt.

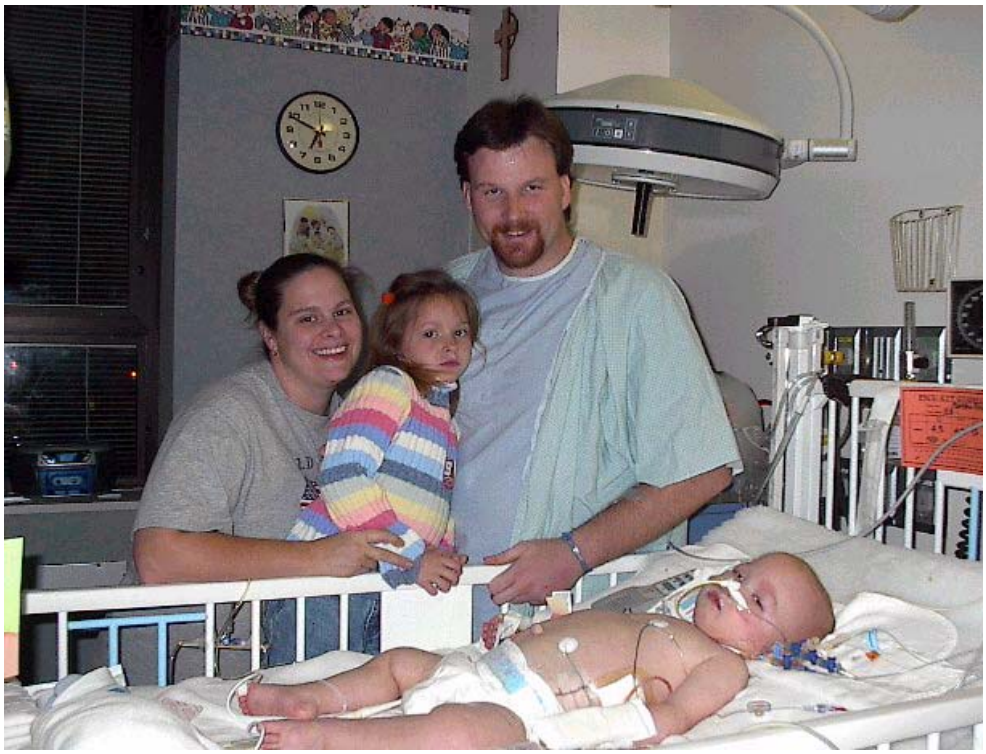
Turn your "selfish" acts into generosity by becoming a member of www.iGive.com/ARPKD. It's FREE, no invisible costs or tricky obligations. Shop for everyday items at the over 330 stores at the Mall at iGive.com, like Barnes and Noble, CDNow, Lands' End and Amazon.com. Up to 26% of each purchase is donated to the ARPKD/CHF Alliance.

Who hasn't uttered the words, "I wish there was something I could do to help?" Now you can. Start shopping!

Join now at www.iGive.com/ARPKD

Matty's Story by Dawn Rowane

For those of you who don't know our story, here it is a snapshot. In July 1996 we lost our first child Abigail to ARPKD. She was born at 34 weeks after a very difficult pregnancy and lived 10 hours. Her lungs were severely underdeveloped and the doctors were unable to sustain her on ventilators. She died in our arms surrounded by our family. Six months later God decided it was time for us to have another. We were being very careful and were still contemplating whether or not we would ever try again. It was quite a stressful pregnancy since the only way to diagnose was via ultrasound. Again, it was a difficult pregnancy, but Sarah was born 10 days early, (which scared the heck out of us) and was absolutely perfect. She's five now and has never shown any sign of the disease. After many discussions and a lot of research, my husband and I decided we were going to try again. The geneticist had told us there was a 25% chance of ARPKD in each pregnancy. Not bad odds. We thought that this was it, one shot, no matter what this was our last child. ARPKD or not. I got pregnant and for once the pregnancy was not dogged with difficulty. Physically at least. Mentally, it was again quite stressful. At 26 weeks the doctors found lowered amniotic fluid and the kidneys were not quite right. It was subtle, but it was enough for my husband to lose it. I waited until the next ultrasound when it was definitely confirmed. ARPKD. The doctors told us that the time for crucial lung development had passed before he was diagnosed, so it was possible that Matty's lungs might not be as underdeveloped as Abby's had been. Small hope, but I held onto it like a life preserver. I went in for ultrasound once a week and fetal non-tress test twice a week for a while. At 32 weeks it was determined that I had "no measurable fluid" and I was put in the hospital at 34 weeks for constant fetal monitoring and bed rest. Matthew was born at 36 weeks, March 2001, via c-section. He cried immediately and I've never heard a more joyous sound. He did have a small pneumothorax, but it was repaired and he had no more lung issues. He was in the hospital for a month, mostly to get his meds and feedings stabilized. In August he got a kidney infection. After a month of IV medication, the kidneys were still infected. It was decided that the kidneys had to come out. The first week of September 2001 he had them removed and started peritoneal dialysis. After a winter full of illness (peritonitis, rotavirus, bronchiolitis, etc), we started to concentrate on a kidney transplant. My husband Roy and I were both tested and are both matches. My husband decided he would like to be the donor, so I'm the benchwarmer. This past summer was spent trying to get Matty to grow...he started growth hormone...and to get him caught up on all his vaccinations that he had missed during his illnesses. Some of the vaccinations are live viruses and there has to be about 8 weeks between a live vaccine and surgery.



So now here we are. We are all caught up. We have a transplant date of November 6, but we all have a cold right now, so that will probably be delayed a bit. Matty and Roy must be as healthy as possible or it's no go. We have been riding the ARPKD roller coaster for a while now. "Matthew" means "gift from God". He has been a wondrous and miraculous gift. And he's the gift that keeps on giving! I just wish we could get past the transplant so we can move on to the next phase. It seems like every time we take a step forward we take one back as well. Matt's docs told us it would be like this, so we had some warning, not to

mention the experiences of some here on the ARPKD board. I am so ready to go, I feel like I'm burning myself out. Matty is a very happy guy, and that helps immensely. Our daughter Sarah has been amazing. We have tried to involve her as much as possible in his care. She knows more about germs than most kids her age should!

UPDATE:

Matthew was transplanted successfully on November 6, 2002 with his father Roy's kidney. He was 20 months old. Their surgeries lasted longer than expected because Roy's kidney was larger than they had anticipated. Both surgeries went very well however. Roy is back to work and feeling great. Matthew had more issues though. (Of course!) Ten days post-tx he had an episode of rejection. His creatinine shot up, he had fever and his urine output decreased. At that point in time, my husband and I did not realize that rejection could be reversed, so we were devastated. Matt's doctor quickly assured us that it was reversible. He did add that rejection this early was not uncommon, but it did worry them somewhat. Matt was biopsied to confirm and put on a stronger type of immunosuppressive medication. He almost immediately showed improvement. It took a few weeks to get his immuno-suppressive medications to therapeutic levels, but we finally did and he was able to come home before Christmas. We are now coming down on some of the doses.

The nephrology team had told us how much better Matty would be feeling after the surgery. He is significantly behind on his physical development. As he was admitted to the hospital he did not crawl, eat, drink, or bear weight on his legs. Within one month of transplant, while still hospitalized, this child began eating real food, drinking real drinks, and pulling himself up on the side of the crib with no hesitation. Since he has been home, he started crawling and pulling himself along furniture. Mid February he started walking. He is catching up so fast; it is even more of a miracle than we thought. His energy level has skyrocketed. He is like a whole new child.

Our family has truly been blessed. We know there are still difficult days ahead, but we feel like there isn't much that we can't take on!

"Most people live in fear of some terrible event changing their lives. For the chronically ill, this terrible event has already happened, and we have been let in on an amazing secret: You survive. You adapt, and your life changes, but in the end you go on, with whatever compromises you have been forced to make, whatever losses you have been forced to endure. You learn to balance your fears with the simple truth that you must go on living."

--Jamie Weisman, "As I Live and Breathe"

A Parent's Perspective

I just wanted to share my story for those out there that have no idea what to expect and are scared. I am a 25 year old mother of a little 3 year old girl with ARPKD. She was diagnosed when I was 28 weeks pregnant. Here in my town I was instructed to see several high risk OB's that told me to consider a late term abortion. They told me that my daughter would live a life of pain and suffering. I am writing you to tell you that she is the most vibrant, fun-filled, adventurous 3-year old I've seen. Yes, she was born 7 1/2 weeks early with many complications, but as for this disease-everyone is different. We were beginning dialysis at 2 days old and 16 days later, she was taken off of it. She has developed asthma, hypertension, lower GI reflex and is on several medications. This is a struggle worth fighting. I was new to this disease and I'm sure that there are many new parents out there facing this as well. I am an open ear and am full of information for those who would like it. After my daughter was diagnosed I returned to school and got a degree in the medical field. She has influenced me to learn more about this disease and fight for education on it as well. We still have a very long road ahead of us, but remember you are not alone and you would be surprised as to what these children can accomplish when given such a cross to bare. Thank you and God Bless.

--Aimee

Aimee can be reached at eighmeeha@msn.com.

If you would like to share your story/experience with our ARPKD/CHF families to be published in our next newsletter, please send to editor@arpkd.org.

This newsletter is sponsored entirely by donations. The ARPKD/CHF Alliance does not charge for membership and all services/programs are free. Contributions allow us to continue our important mission. Here are some ways you can help…

- Make a tax deductible contribution to the ARPKD/CHF Alliance. Make checks payable to: ARPKD/CHF Alliance. Mailing address: P.O. Box 70, John Drive, Kirkwood, PA, 17536
- Designate the ARPKD/CHF Alliance on your pledge form to the United Way. (United Way administration fee is generally 10%.)
- Double your donation, arrange for a matching fund donation through your employer
- Organize a Fund Raiser: a Benefit Yard Sale, Book, Craft or Bake Sale, a Car Wash, Bike-A-Thon, Raffle, Auction or Nickel/Dime Drive
- Plan a Fund Raiser in conjunction with another organization: Lion's Club, Kiwanis, 4-H, Elks, Rotary, American Legion, Moose Lodge, VFW, Chamber of Commerce, Nights of Columbus, Boy/Girl's Club, and Youth & Women Groups.
- Talk to family, friends, co-workers and neighbors about ARPKD and CHF! Tell them about the ARPKD/CHF Alliance, our purpose and mission – some may be looking for an organization to help!

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WishList: The ARPKD/CHF Alliance graciously requests the donation of:
A Laptop with Rewritable CD Drive

Honoring or remembering someone in a special way.

Do you know someone you would like to honor or remember in a special way? A donation made *in memory of* or *in honor* of a special someone or occasion is a wonderful way to give a gift and support the ARPKD/CHF Alliance at the same time. We will acknowledge your kind donation with a thank you letter and receipt. Please complete the form below to make a tax-deductible gift. Thank you for your support!

A GIFT MADE...

In memory of _____

In honor of_____

In celebration of _____

(Birthday, Graduation/Congratulations, Anniversary, Retirement, Job Well Done, Other)

Please send an acknowledgement to:

Name_____Address_____

City_____State_____Zip_____

From _____
(Your Name)

May we acknowledge your gift in our newsletter or on our website? Yes No

Julie Anne Miller's Story

My name is Jennifer Miller (Jenny) and my husband, Todd, and I have two daughters. Kristen is now 8 years old and without ARPKD and Julie Anne will be 6 on April 14, 2003 and does have ARPKD. Knowing Julie has this disease has changed our way of thinking about life in general, making us realize just how precious life really is.

I will never forget the day that we found out about Julie's ARPKD. My nurse practitioner scheduled me for an ultrasound, which I thought was odd. They didn't usually do an ultrasound unless they thought there was something wrong. She didn't have any reason to think anything was wrong but since I was scheduled for a c-section, she said sometimes the doctor wanted to know the baby's position before delivery. I was still 2 weeks away from delivery. Anyway, Todd was working that day so I went alone. I knew there was something wrong when the ultrasound tech didn't tell me what he was seeing and made me wait an extra long time to bring a doctor in. I was devastated when they told me they thought Julie had this disease. I completely panicked. The doctor scheduled me for a more extensive ultrasound a week later. Todd said he talked to people at work and they tried to reassure him that it was just shadows playing tricks on us. My parents said the same thing but were worried just the same.

A week later we went for the more extensive ultrasound and this time, Todd made sure he went with me. They said the same thing…it may be shadows so we just had to wait until delivery to find out for sure. At least that day we found out we were having a little girl and we got to take home her first pictures.

Delivery day came. My parents kept Kristen while Todd went with me to the hospital. Delivery went without a glitch and we were on Cloud 9 on Julie's birthday. My parents brought Kristen to the hospital to meet her new sister late in the day while I was eating dinner. It was such a wonderful day. The next morning was a complete turnaround, though. The nurse had come in around 7am to take Julie to the nursery for her vitals (they did that at every shift change) but they still hadn't brought her back by 9:30am. Todd came down to the hospital after dropping Kristen off at my parents' house. He went to the nursery to check on her and he said it was a sight he will never forget. He said he'd swear he was walking into Dr. Frankenstein's laboratory. The nursery was dim. They had Julie under a heat lamp with all kinds of wires attached to her and about 5 or 6 doctors around her. She had been crying so much that she was hoarse. Todd was practically in tears when he saw her. He came to tell me what was going on. We were scared and worried all day until an adult nephrologist came in to tell us she definitely had ARPKD and she probably would not survive. When we were to be re

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leased, they would refer us to an adult nephrologist at another hospital who had more than 20 years of experience with children. That day a cardiologist also came in to talk to us about another problem Julie had. She had a heart murmur as well. We were concerned, of course, but that didn't seem like much compared to the ARPKD. Todd went home that night determined to find something about ARPKD on the Internet. That helped a lot because the nephrologists at the hospital knew nothing about ARPKD other than most babies did not survive past 6 weeks, seemed kind of funny that we had to teach them something.

I was released as a patient after 3 days but we weren't allowed to go home yet. Julie was still a patient so we were moved to the children's ward. Julie was having "bluing" spells where the skin around her eyes, nose and mouth would turn a dark purplish-blue when she was sleeping. The doctor wanted to monitor her blood pressure as well because it seemed to start fluctuating. After 3 days, the doctor decided the bluing spells were just her skin playing tricks on us and her blood pressure seemed to stabilize somewhat so we were finally released. I was amazed at my parents and Todd with all of their support but it seemed like we were all in denial at that point. We were all just so happy to be able to finally bring Julie home.

That was just the beginning, though. A week later, her blood pressure wouldn't stabilize so we had to start her on Captopril. She was born April 15,1997 and her entire first summer was a blur. We spent so much time going back and forth to the doctor's office because our insurance would not cover a blood pressure monitor so we would adjust her medicine and take her to the doctor to get her bp checked. If we had to adjust her medicine, we were back there within 3 days to check it again. If we didn't have to adjust it, we were still back by the next week to make sure it wasn't changing. Most times it did because she was growing so fast.

I really got to love the nurses and Julie's pediatrician because of all the interaction. Julie's pediatrician did not have any experience with PKD so it was a learning experience for her as well. She really boosted my confidence because she was always asking me for my opinion and asking me questions.

Like I had said, the hospital had referred us to an adult nephrologist at another hospital who had more than 20 years of experience with children with kidney problems. We got to see him a few times and this man really gave us some hope. He said some children do not survive and some children do. He had seen so many cases and they were all different. He told us that if she made it to 2 years old we were doing okay because she would be big enough to withstand a transplant. Things seemed pretty normal around our house after that and we went on about our lives. Julie seemed to do pretty well. She sometimes would vomit her food but since we started bottle-feeding her at 5 weeks old, she would eat so fast that it would just come back up. I didn't think her development was off in any way other than she was late doing certain things. She didn't roll over, sit up or crawl on her own until she was about 9 months old and it was due to her weight. She was such a big baby. She never did crawl, though. She scooted. You could sit her up and she'd lift her hips individually to move. She was just so hysterical to watch. At 5 months old, Julie started taking Propranolol to keep her blood pressure under control. We did not have to adjust her medications very much once she started taking it.

Todd and I checked into genetic testing and had some blood tests done but they proved inconclusive. Todd, Kristen and I have done an ultrasound on our kidneys and liver and have found no cysts.

By 3 years old, Julie's heart murmur had healed itself. I understand they are a genetic thing but it was wonderful to know that something about her was finally okay. We had been checking it every 6 months. She looked completely normal. Her stomach didn't look enlarged at all but Todd and I are both of German descent and are both "big-boned" people. Julie's kidneys seem to be growing proportionately with her body.

Todd was from Albuquerque, New Mexico, and I was from a military family. My father retired from the Air Force and moved our family to Albuquerque where my mother's family was living at the time. Todd and I met and married in 1985. In August of 2000, Todd and I moved to Monument, Colorado, a suburb of Colorado Springs. Today Kristen is 8 and is almost finished with 2nd grade and Julie will be 6 years old on April 14th and is almost finished with Kindergarten.

Julie's condition has remained stable for the last 3 years. We hadn't had to adjust her medicines in over two years until June, 2002. She only sees the nephrologist once a year in the summer and her pediatrician in between for blood pressure checks once every 4 months. t her nephrologist's visit last June, Julie's blood pressure medicine seemed to be working too well. [It] had been running about 90/60 and the nephrologist said she'd like to see the top number around 110. She wanted to adjust the Propranolol and not the Captopril since Captopril has so many benefits associated with it. Julie's dosage of Propranolol was so low to begin with that we ended up eliminating it all together and we didn't have to adjust

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the Captopril at all. Her bp is now running about 100/65-70 and the doctor was happy enough with that.

Julie is a big girl for her age. She is in the 90 percentile for height and 70 percentile for weight. he and her sister are 2 years and 3 months apart and are only one clothes size and one shoe size apart. We laugh because they are such opposite personalities. Kristen is very focused and a very serious person. She is a rule-follower and a perfectionist and likes things to be a certain way. Julie is very affectionate, easy-going and eager to please. She loves to help out whenever she can and she loves to share. Her favorite past-times are arts and crafts, playing with Barbie and coloring. She couldn't get enough of preschool and loves being a "big kid" now that she's in Kindergarten.

To us, the ARPKD is like a dark cloud looming in the background. I don't know if you can say we're still in denial about Julie's ARPKD but other than her taking her medicine twice a day, we really don't see any problems with her. We know it's there, though. I feel so lucky to have her as "healthy" as she is. I come from a family of 5 children and Todd only has one sister so I always wanted a larger family, especially a son. After Julie was born and later finding the Yahoo group online, though, we felt like we didn't want to go through this again so we decided two children was enough. I really enjoy being a Mom to Kristen and Julie and I wouldn't change either one of them for anything. They are the joy of my life!

Time Does Not Heal All Wounds by Dawn Chandler

Before April 24,2001, I had never heard of ARPKD. I was in the ultrasound room at the perinatologists office and was nervous. We knew we were there because things weren't "right" with the baby. Never did I imagine that we would be given a death sentence that afternoon. A few weeks before, I was picking out names and explaining to friends why I needed to put off a trip we had planned for the summer. Now, I was sitting scared in a sterile exam room where I would be told that my child had a fatal birth defect and that there was no hope for survival. We had gone into the appointment thinking that we would be told our second child, with whom I was 18 weeks pregnant, would be scarred with congenial anomalies. We were shaken, but felt prepared for this, as our first child had multiple handicaps. I began only hearing pieces of what the doctor was telling us "…polycystic kidneys … no hope for survival … discuss your options …"

The rest of the pregnancy was unjustly smooth. Every visit to the doctor yielded the same comments. "The baby's heart beat is strong. He is doing so much better than he should be. I don't understand." The baby remained active- kicking, punching, squirming- his every movement piercing my heart simply because his activity could not continue outside of my womb.

On July 3, 2001, eight weeks before he was due, everything changed. It changed because I went into labor. The next few hours were a whirlwind of activity and emotion. I remember very little about the birth of my son, Samuel. I was in shock, not ready to face my impending loss. I can remember watching the fireworks the night after he was born. I could see the programs of three different cities outside my window. My emotions, my dreams, my life seemed to be exploding right along with them.

I have a picture of me holding my son on my desk. I'm studying it as I write this letter. There are many days when I cannot even bring myself to look at the picture. He looks so peaceful lying in my arms. To the untrained eye, he looks like he's sleeping. But Sammie isn't sleeping. Sammie lived a little more than an hour, stripped from my life through this horrible stain on my genes called ARPKD.

When a child dies, no one knows what to say or how to say it unless they have been through it themselves. Well-intended but painful words are uttered carelessly and tossed into the breeze like yesterday's newspaper is thrown into the recycling bin. "God will never put more on you than you can bear," "Sammie is in heaven," and "God has a plan for all of this." I've thought to myself on more than one occasion," well, I had a plan too and it didn't include burying my child!"

The heart of the bereaved is wounded and fragile and nothing can heal that blood-red pain except time. But time does not heal all wounds. The wound slowly mends day by day, but never heals completely. It is always there. Always looming in the background unearthed at times we don't expect, and would rather not face. There are days we can laugh and days we only want to cry. As we face our grief daily, we continually pray for healing in our hearts for the ones we have lost.

RESOURCES:

Pregnancy and Infant Loss Center Services – People caring for caregivers or parents who have experienced the devastation of the death of a baby @ (952) 473-9372 or www.pilc.org

SHARE-provides support towards positive resolution, information, education, and resources on infant death, needs and rights, call (314)947-6164 or contact them @ http://www.nationalshareoffice.com/about.html

INTERACTIVE EMAIL OR LISTSERV GROUPS:

Here is how they work... register for free, then submit messages or participate silently (just "listen" in). Submitted messages are distributed to all list members for reading and potential reply.

ARPKDLOSS ONELIST- for parents who have lost an infant, register at: http://groups.yahoo.com/group

ARPKD ONELIST—for parents and affected individuals, register at: http://groups.yahoo.com/group

ARPKDadults-for adults living with ARPKD and CHF, register at: http://listserve.geneticalliance.org/mailman/listinfo/arpkdadults. (This forum is a closed list, meaning only subscribers are allowed to participate. All subscribers must be approved.)

ADpkdchildren-for families with infants and children affected by ADpkd, register at: http://groups.yahoo.com/group/ADPKDchildren

ARE YOU INTERESTED IN ADDITIONAL NETWORKING OPPORTUNITIES? WOULD YOU LIKE TO FACILITATE AN "ARPKD/CHF NETWORK" IN YOUR AREA? IF SO, CONTACT THE ARPKD/CHF ALLIANCE! WE SUPPORT LOCAL/REGIONAL NETWORKING! (THIS HAS LIMITLESS POSSIBILITIES.)

PROGNOSIS FOR ARPKD/CHF

Prognosis, especially for those who survive the newborn period is far less bleak then once thought. Infants with ARPKD who survive mechanical ventilation have a good chance of survival. The 5-year survival rate is 80 to 95% for those who survive the neonatal period (pertaining to the first 4 weeks after birth), because of improved ESRD (End Stage Renal Disease) treatment, and more effective control of both systemic and portal hypertension, survival into adulthood is common.

Correlation of disease symptomatology with age at time of diagnosis has been suggested. It was thought that ARPKD individuals who were diagnosed early in life exhibited more kidney manifestations, with little, or sometimes no apparent liver involvement, while those diagnosed later in life, up to adolescence, (seldom into adulthood), manifested more clinical liver complications with little or no kidney manifestations. This description does not however take into account the prominent liver manifestations that occur in children with early kidney transplants who initially exhibited no liver problems.

Because of continued improvements in mechanical ventilation, neonatal support, control of hypertension, management of ESRD and transplantation, the ARPKD population is now living well into adulthood.

This information is found at www.arpkd.org

Understanding Genes and the Genome Sites:

National Human Genome Research Institute at: http://www.genome.gov/

Genomics Glossary at: http://www.genomicglossaries.com

"Cracking the Code of Life, Journey into DNA", NOVA Online at http://www.pbs.org/wgbh/nova/genome/dna_sans.html

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When You Can't Afford Your Medicine

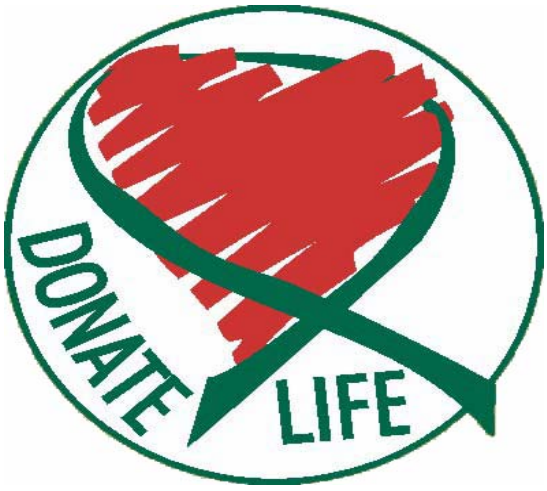
There is a "Medicine Program" that offers assistance to individuals who are regularly required to take prescription medication but lack adequate income to fill their prescriptions each month. There is a one time $5 filing fee per prescription and then the Medicine Program staff will fill out the paperwork necessary to get the individual into one of the drug manufacturer-sponsored patient assistance programs. Several drug manufacturers are now sponsoring patient assistance programs that provide free medicine to those that qualify. This service is available to people of all ages.

For more information, visit The Medicine Program or call 573-996-7300. Brochures are available in both Spanish and English.

PhRMA has a list of patient assistance programs for prescription drugs at http://www.phrma.org/pap/. On that same internet page in the right hand column, are links for other types of government supported and private assistance programs in Massachusetts and New Jersey.

ARPKD/CHF Alliance
PO Box 70
Kirkwood, PA 17536
717-529-5555

You can help spread the word about life-saving organ and tissue donation. **Tell your family about your decision to donate!**



FUTURE NEWSLETTERS…

If you would like to like to receive newsletters via email, or would like to be on our mailing list, please contact us (contact information located on page two). Likewise, if you would like to be removed from the mailing list, please notify us.

Have you moved? Please contact us with any address changes; newsletters returned will not be forwarded. We encourage you to share this newsletter with other ARPKD/CHF families and the professionals who care for them.