



# RENALIFE

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July 2018

**PATIENT  
PROFILE:  
Priscila  
Kilgour**

**Kidneys and Food:  
How Are the Two  
Related?**

**Innovator Series:  
Third Kidney, Inc.  
CEO Ray Keller, DO**

*A Publication of the American Association of Kidney Patients*



# **AAKP** **RENALIFE**

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Understanding kidney disease is a critical first step to improving your health. The American Association of Kidney Patients is the leader in kidney patient centered education. For nearly 50 years, AAKP has provided patients and families the educational tools they need to understand kidney disease and take a more active and informed role in their health care.

Our efforts across the country to speak on behalf of patients and their families have improved their lives and well-being - benefiting all of America's kidney patients. Building communities among kidney patients and their families, health care professionals, and other support groups is an important goal of AAKP.

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The Independent Voice of Kidney Patients Since 1969™

# Contents



## 7 | PATIENT PROFILE

Priscila Kilgour

*By Priscila Kilgour*

This year Priscila turns 80 years old and celebrates the 26 year anniversary of her kidney transplant. In her own words, she tells her amazing story of living with kidney disease. She begins with her diagnosis in 1966 of subacute glomerulonephritis, talks about her years as working as a registered nurse in an operating room and in outpatient, her years on dialysis, and receiving her first and second transplants. She also gives the reader advice on never losing hope and how to find support.

## 16 | INFORMATION ARTICLE

Innovator Series: Third Kidney, Inc.  
CEO Ray Keller, DO

Meet Innovator Dr. Keller, CEO and founder of Third Kidney, Inc. He shares with AAKP readers his insight into sweat-based therapies to treat kidney disease and reduce or eliminate dialysis treatment. Third Kidney currently is designing an operational medical-grade sauna capable for research. With the proper support, production models would be available in September 2018 for safety trials.

## 11 | NUTRITION ARTICLE

**Kidneys and Food: How Are the Two Related?**

*By Nancy K. Uhland, DNP, FNP-C*

For a person living with Chronic Kidney Disease (CKD) food choices are especially important. AAKP Medal of Excellence winner, Nancy Uhland, encourages readers with CKD to try to approach food choices in a positive manner. Living with CKD requires careful consideration of your current relationship with food. In the article, she gives six tips for ensuring your kidneys and food choices relate positively.

### AAKP's 43rd National Patient Meeting

Turn to page 10 to see the award winners and some photos of AAKP's National Patient Meeting that was held in June 2018 in St. Petersburg, Florida.

# MESSAGE FROM AAKP

Happy summer to every AAKP member and family!

The AAKP team hopes you are enjoying yourselves this summer – AAKP started ours off with a **BANG** at our **43rd National Patient Meeting** in St. Petersburg, Florida where we broke an attendance record, had an overwhelming patient response to our sessions entitled Innovations in Kidney Disease Care and Under the U.S. Capitol Dome (with legislative updates from allies from Washington, D.C.) and racked up a series of major partnerships that benefit patients that we will be announcing in the coming months! It was a real pleasure to see so many old friends at the meeting and to meet so many new AAKP members! In a special and very poignant moment, we also remembered our dear friend and AAKP Board of Directors member and Ambassador, Bill Murray, who we lost on May 26, 2018. AAKP will continue to honor this fine person and brave patient advocate – he was awarded the AAKP National Social Media Award, which was renamed in his honor and memory as the Bill Murray National

Patient Voice Award. For those who missed our meeting – select sessions were live streamed and the recordings are now available on our YouTube Channel (American Association of Kidney Patients). You can view photos of the meeting on our Facebook page (@kidneypatient).

AAKP also made important news at our annual in-person AAKP Board of Directors meeting – we have hired our **new AAKP Executive Director – Mrs. Diana Clynes!** Many of you know Diana personally, as she has been with AAKP for over 13 years and has served with tremendous distinction in implementing the AAKP National Strategic Plan through our Center for Patient Engagement and Advocacy, as well as the Center for Patient Research and Education. I have had the honor of identifying and hiring professional teams throughout my career in the private, government and non-profit sectors and as patient members, you should be very proud of Diana. She embodies the highest standards of national association leadership – a demonstrated ability to listen to and respond to members, unrelenting focus on mission principles and performance metrics, and a level of creativity and accountability that reassures and attracts an expanding network of new donors and sponsors. Perhaps most importantly,

especially to kidney patients, she shares the proven ability to aggressively challenge the status quo in dialysis and transplantation in order to both expand patient choice and access to all treatment options. Please join me in congratulating Diana as the new AAKP Executive Director as she leads our professional team of experts. Together, the skills and personal commitment to serve a noble cause makes your AAKP team of Diana Clynes, Executive Director; Erin Kahle, Director of Stakeholder Operations; Valerie Gonzalez, Office Operations; Deborah Pelaez, Marketing and Communications Manager and Tangi Falber, Administrative Lead one of the most respected – and effective – kidney organizations in the United States.

As we move forward with the summer, AAKP needs your help as patient members. AAKP announced the start of our **50th Anniversary Year** at our annual meeting in Florida. In addition to the fundraising and events that will mark the coming year, we have set a target of **increasing our membership to 250,000 patients and caregivers!** We are committed to educating patients on how to stay healthy and increasing their knowledge about ALL types of treatment options including pre-emptive transplant and home dialysis. Please tell your fellow patients, caregivers and friends about AAKP –

membership is free to patients and family – and they can join today by simply going to <https://aakp.org/join/>.

We also need your assistance as we continue to make our voice heard on a highly controversial and sloppy piece of legislation under consideration by the U.S. Congress, the **PATIENT DEMONSTRATION ACT (House Resolution H.R. 4143 and Senate Bill S. 2065)**. This bill denies patients like you a full voice in your own care, interferes with your patient/doctor relationship and forces patients on dialysis into a proposed Federal dialysis demonstration project through a mandatory “opt-in” enrollment - whether you want to participate or not! If you as a patient do not want to be enrolled – you only have 75 days to “opt-out!” AAKP believes that patients should have full freedom in their care decisions and that dialysis companies should work hard to keep YOU as a consumer customer – meaning YOU should be able to “opt-in” if you so choose! The bill is also weak on kidney transplantation issues and essentially puts non-transplant experts – dialysis providers – in the driver’s seat when it comes to future kidney transplants. We think both the process by which this bill was created – through dialysis industry insiders and not patients – as well as the actual language in

the bill represents a historic low point in kidney policy. **AAKP, as the largest, independent kidney patient organization in America, is joined by our allies at the American Society of Nephrology (ASN), the largest nephrology professional association in the world, united in opposition to the PATIENT DEMONSTRATION ACT.**

Our voices are raised in unison against the bill by our other allies and friends with the American Society of Transplant Surgeons (ASTS), the American Society of Transplantation (AST), Dialysis Clinic, Inc. (DCI), the Rogosin Institute, Northwest Kidney Centers, the Washington State Medical Society, nearly all other non-profit dialysis providers in America – and medical experts at nearly every level. Even the American Medical Association has been drawn into this issue and is currently studying the implications of the legislation from a medical professional viewpoint. Sadly, due to the unusually aggressive efforts to pass this bill by one major national dialysis provider and their heavily-funded Political Action Committee (PAC), the usually united kidney community has been torn apart. In addition to the many patient organizations and professional medical groups publicly opposed to the bill, the increasing controversy has led other national kidney organizations usually supportive

of kidney policy issues in the Congress - including the American Kidney Fund (AKF), the Renal Support Network (RSN), the National Kidney Foundation (NKF) and Kidney Care Partners (KCP) - to steer clear and focus their efforts on other issues.

At AAKP – we believe the patient voice has a principled clarity and sense of urgency that rises above the typical push and shove of the Congressional political process or the spending of a particular dialysis industry Political Action Committee (PAC). We also believe that your kidney care – and who determines your future care - should not be a political football. Please join us today in opposing the PATIENT DEMONSTRATION ACT. You can make your voice heard through AAKP by contacting YOUR ELECTED OFFICIALS through simply <https://aakp.org/action-center/>.

Thank you again for your support of AAKP – and for raising your voice to help educate Congress to protect the rights of your fellow patients! Enjoy your summer, wear sunblock (!) and stay safe.



Paul T. Conway  
President of AAKP



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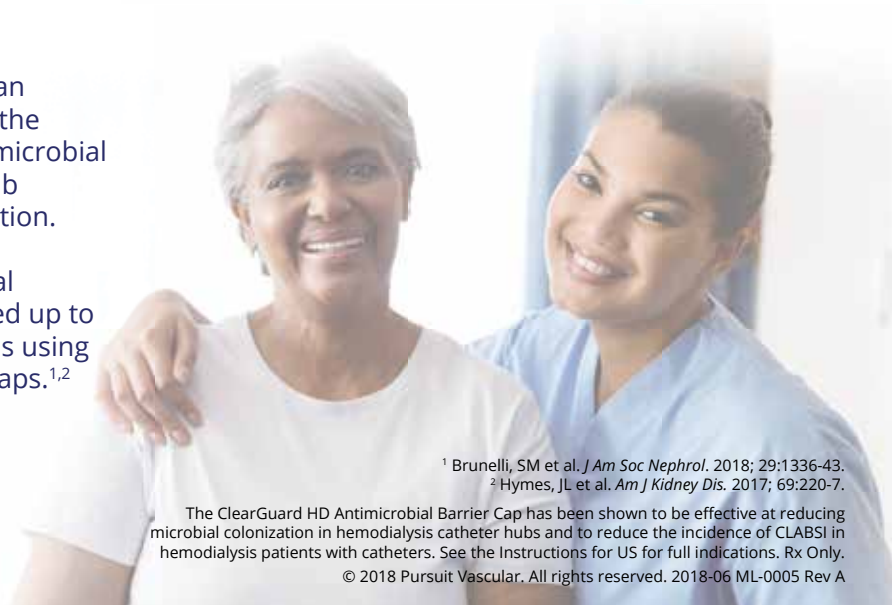
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<sup>1</sup> Brunelli, SM et al. *J Am Soc Nephrol*. 2018; 29:1336-43.

<sup>2</sup> Hymes, JL et al. *Am J Kidney Dis*. 2017; 69:220-7.

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## PATIENT PROFILE

# Priscila Kilgour

*By Priscila Kilgour*

In 2018, I reached two milestones in my life: I celebrated my 80th birthday and the 26th anniversary of my kidney transplant. I am a registered nurse who worked most of my professional life in the operating room. I retired in 1998 to spend my time doing what my husband Bill and I enjoyed best: traveling, going to the theater, attending concerts and especially attending live performances of my favorite musical experience, the opera.

In 1966 I received a diagnosis of subacute glomerulonephritis from Dr. Kurt Lange, my nephrologist who took care of me until his death in 1989. All of that time I continued to work full-time in the operating room. Although my kidney function eventually went down to 25%, I was able to continue to work with enough energy because this condition happened over a period of many years, enabling my body to adjust.

The cause of my kidney disease was probably due to an undiagnosed strep throat (absent any history of high blood pressure, diabetes, etc.). However, I did have a history of untreated sore throats in the past. In 1965 I was pregnant and had pre-eclampsia which resulted in the tragic stillbirth of a child at almost nine months, which probably contributed to my kidney disease. My initial treatment was a year of heavy doses of steroids, after which I was diagnosed with chronic glomerulonephritis. After 23 years, my kidneys finally failed.

I continued to work as an operating room nurse until 1988 when I requested a transfer to an out-patient setting after sensing that I would



Priscila working with another nurse and an O.R. orderly in the 1970's



Priscila working in outpatient in the 1990's

eventually benefit from a job less stressful and with more regular working hours. It was shortly after this (after a fishing trip in Canada) that I was informed by my nephrologist that I needed an AV fistula in preparation for hemodialysis.

*Patient Profile continued on next page*



*Patient Profile continued from previous page*

I had an AV fistula created in the summer of 1989. Luckily my only sibling, my older brother Fred Padin offered his kidney to me. He is an Urologist living in Pennsylvania and at age 82 he is still a healthy, practicing physician. We had all the tests done and the health team was delighted to find that we were a perfect six antigen match.....almost like twins! Everyone anticipated an uneventful transplant with me taking only a minimum of immune suppressing medications. But fate would not have it, and five days after the surgery I suffered an acute rejection episode and in spite of all the health team's efforts, I tragically lost my brother's kidney. His loss haunts me to this day more than my loss because all I had to do was go back to dialysis.



*A recent photo of Priscila exercising*

After that event, I got calls from cousins all over the country offering to donate their kidneys. Unfortunately, they were not good matches or had medical conditions preventing them from donating. I am forever grateful to them for their generosity. After this tragedy I became closer to my brother and my relatives which resulted in many grand family reunions. I also had numerous calls from friends offering to donate their blood when I needed blood transfusions while on dialysis. In the 1980's this was indeed a welcome gift.

In 1992, after three years on dialysis, I got a call that there was a deceased kidney available. Among about three other candidates, I was chosen to be the recipient of that kidney. It was March 19, St Joseph's day that I finally got my kidney from a 19 year old boy whose family so generously gave me another chance at life. I had just turned 54 the previous month.

*Here are a few thoughts that I have from my experience:*

Never lose hope no matter how bleak your future may seem. While I was on dialysis I willed myself to think of my dialysis machine as a friend who was enabling me to get through the days between treatments. To make my treatments less stressful, I trained myself to insert my own dialysis needles using my left hand because my fistula was on my right arm (I am right handed) and to help prepare some of the equipment that I needed for treatment. After a few months I managed to make myself comfortable enough and grateful that I had dialysis to keep me alive.

Work for me was a blessing. It gave me the sense of purpose and worth, a knowledge of being needed and being capable of serving others. Some thought I would be eligible for disability



retirement but this was never an option for me since I felt strong physically and mentally. I have to admit that the first months of dialysis were really trying but once I convinced myself that this might be my way of life, I seemed to get a second wind. I tried not to make my life a tale of woe. There were so many others who have to deal with more difficult challenges than me.

Since I had put myself in the transplant list, I knew that I had to be in very good physical shape in preparation for a possible kidney transplant. Instead of driving, I would walk the two miles to and from Church. At work I'd walk around the block or go up and down the stairs during part of my coffee and lunch breaks. I tried to banish the thought that if a perfect match lasted only five days, how long could a deceased kidney last? It was not easy but I managed to put a positive spin on my thoughts. I also considered taking a master's degree in nursing. I was accepted in two colleges and thought I could do this on a part-time basis while on dialysis and working full time. This would have kept me very busy if my gift of a kidney had not come. And when it came, I was in very good physical and mental shape. This was 26 years ago.

All of the above would not have been possible had I not the support and love of my husband Bill. He got me through the most trying times and with my faith in God and the generosity of my donor family, I managed. We celebrated our 55th wedding anniversary last year and I hope that we will have many more to come.

I must mention that getting a transplant is not without cost. One must take the immune suppressive drugs for life. Secondly, I've had to deal with the after effects of several steroid infusions due to acute rejection episodes immediately following my first and second



Priscila with her brother Fred in 1964 on the way to the Statue of Liberty

transplants. I had total hip replacements of both of my hips two years after my second kidney transplant. However, the quality of life that I have experienced as a kidney transplant recipient is without the constraints, discomfort and risks that dialysis imposes. For such a rewarding and happy life, I believe the price is well worth it.

I receive much help and support from two support groups to which I belong: TRIO Manhattan and the Rogosin Institute support group. By attending their meetings over many years, they have enabled me to feel a sense of belonging to a community where we not only support and encourage one another but also share information and experiences unique to our shared history. 🌸



# 43rd National Patient Meeting

AAKP's 43rd National Patient Meeting took place on June 8 – 10, 2018 in St. Petersburg, Florida. The meeting's educational sessions covered topics including legislative issues, innovations, nutrition, social media, caregiver sessions and more. We were thrilled to have over 200 attendees from all over the United States. If you missed our meeting, you can view many of our sessions on our YouTube page. (Go to YouTube and find us under American Association of Kidney Patients.) Here are some photos of the fun we had at the event, as well as the recipients of our 2018 Annual Awards.

## *Legacy Awards*

### **President's Award**

Mr. Tod Ibrahim, American Society of Nephrology

### **Samuel J. Orenstein Award**

Joyce Jackson, President and CEO, Northwest Kidney Centers

### **Peter Lundin, MD Award**

Samh Abul-Ezz, MD (posthumous)

### **Lifetime Academic and Professional Achievement Award**

Stephen Fadem, MD, FASN, FACP; Chairperson of AAKP Medical Advisory Board; and AAKP Historian

### **Dominick Gentile, MD Memorial Award**

Quality Insights Mid-Atlantic Renal Coalition

### **Kidney Patient Support Group of the Year**

All Kidney Patients Support Group

## *Patient Engagement and Advocacy Awards*

### **National Patient Engagement and Advocacy Award**

Patrick Gee, PhD, AAKP Ambassador

Brian Hess, AAKP National Board Member

### **National Social Media Education and Advocacy Award**

William Murray, AAKP National Board Member and Ambassador (posthumous)

## *Public Service and Congressional Awards*

### **National Public Service Award**

Elena Balovlenkov, MS, RN, CHN, Centers for Medicare and Medicaid Services

Robert Star, MD, National Institute of Health

### **Congressional Advocacy Award**

Peggy Tighe, American Society of Transplant Surgeons  
Rachel Meyer, Director of Policy and Government Affairs,  
American Society of Nephrology



AAKP BOD Suzanne Ruff with her husband Bill volunteering at the AAKP booth



AAKP President Paul Conway (left) and AAKP VP Richard Knight (right) award Peggy Tighe of ASTS and Rachel Meyer (ASN) Congressional Advocacy Awards



Tod Ibrahim (ASN) received AAKP's President's Award



A crowd of over 200 patients, caregivers and healthcare professionals attended





## NUTRITION ARTICLE

# Kidneys and Food: How Are the Two Related?

*By Nancy K. Uhland, DNP, FNP-C*

Kidneys are an important organ and perform several functions in order to keep our bodies healthy. Food is an important substance we consume in order to provide our bodies with the fuel and energy it needs to maintain life. But, just how are our food choices related to the well-being of our kidneys?

One of the functions of the kidneys is to remove waste materials from the food we eat. By doing this, the kidneys help regulate important nutrients such as sodium, potassium, protein, acid content, and various vitamins. Thus, the food we choose to eat actually matters to the kidney.

For a person living with Chronic Kidney Disease (CKD) food choices are especially important. Because, in CKD, the kidneys lose some of their ability to filter these nutrients, putting the person with CKD at-risk for unsafe levels of nutrients building up in the body. As the CKD progresses, the kidneys have a more difficult time filtering these nutrients, eventually leading to adverse consequences.

If you have been diagnosed with CKD, you have probably been given a list of things you are “not” supposed to do, and, dietary restrictions are no exception. Since a large percentage of persons with CKD also have diabetes and hypertension, which come with their own unique dietary restrictions, it is not

*Nutrition Article continued on next page*



*Nutrition Article continued from previous page*

uncommon to feel an extra level of anxiety related to food choices. You may find yourself asking, “Is there anything I can eat?” For some, this becomes a frustrating question, and frustration may lead to poor food choices. Instead of allowing this to have a negative association or allow it to feel complicated, let’s consider shifting our attitude and approaching our food choices in a positive manner. Your personal eating habits are where health and disease intersect, but the good news is that it is never too late to choose healthy eating habits.

Here are a few tips for ensuring your kidneys and food choices relate positively:

1. **Avoid artificial foods:** The food choices you make will have an impact on your kidneys so choose natural foods, and aim to avoid anything artificial. Artificial foods have been processed, they try to mimic natural foods, and often contain ingredients that are not easily pronounced. They should simply be avoided!
2. **Be mindful:** Ask yourself, “Will this food choice make me feel like an athlete or will this food choice make me feel tired?” Being aware of how certain food makes you feel (e.g., bloated, mentally cloudy, sluggish, etc.) will

help you make better choices. Think before you eat!

3. **Choose plant-based proteins vs. animal-based proteins:** Protein demands change depending on the CKD stage. Therefore, it is important to know your stage of CKD to know how much protein you should be eating. But, when you do choose protein, it is wise to choose plant-based proteins over animal-based proteins to support reducing the toxic products in your blood.



4. **Do plan your meals:** While planning takes time, it is worth the extra steps to lessen the risk of making poor food choices when hunger strikes. Preparing your meals at home will



help avoid choosing fast food and artificial foods that tend to be very high in sodium (salt). Also, when you prepare your meals at home, you are in charge of the ingredients. This is especially important when you need to avoid certain nutrients to prevent further complications.

5. **Establish healthy eating habits:** Eat slower, and avoid getting too hungry or too full. Try keeping a food journal as this will allow you to be more mindful of what you are actually eating.
6. **Finally, be kind to yourself!** Eating should be enjoyable and not feel punitive. And, if you do make an unhealthy choice, acknowledge it, and next time, choose a healthier option!

It is important to understand that as CKD progresses, your individual dietary restrictions will change. So, maintaining communication with your healthcare provider is essential. Living with CKD requires a careful consideration of your current relationship with food. Part of being in a successful relationship with food requires healthy eating habits. Making a shift in approaching your nutritional management may be challenging, but it is not impossible. You are powerful, you are strong, and you are who makes the difference when it comes to how you choose to fuel your body. Now go and be empowered when it comes to making healthy food choices, and remember that making positive changes in your diet will make a positive difference in your kidney health. 🌸



*Nancy K. Uhland, DNP, FNP-C is a nurse practitioner in the renal division at The George Washington Medical Faculty Associates in Washington, D.C. Dr. Uhland serves as a board member on the District of Columbia's Board of Nursing, and is President-elect of the Nurse Practitioner Association of the District of Columbia. She is a member of the American Academy of Nurse Practitioners.*

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## AAKP Innovator Series: Third Kidney, Inc. CEO Ray Keller, DO

Third Kidney Inc. is focused on utilizing the human body's skin sweat glands for purposeful, measurable, replicable renal function. The low-risk, sauna-based procedure Third Kidney has developed is built upon a large body of prior medical work, as well as numerous holistic cross-cultural health practices from around the world. Third Kidney has completed animal testing and is now certified to begin human testing. If successful, this sweat-based therapy will greatly improve renal replacement therapy and the lives of chronic kidney disease patients.

**Tell us about your first experience with kidney patients and what impressions that left on you as a person and as a professional.**

My first experience with kidney patients was working as an EMT transporting them to and from their hemodialysis appointments in New Jersey. At that point in my life I didn't understand the science behind dialysis, only that it purifies blood. I saw firsthand that the person I transported to dialysis was a different person than the one I transported back home. On the way to the appointment, the conversation was rich with occasional laughs, but, on the way home it was better to be quiet and let the patient rest. As one patient described the process, "I spend one day doing dialysis, and one day recovering from it."

I greatly sympathized with my CKD patients. I had the idea for Third Kidney one day when I was exercising: I realized I could smell ammonia in my sweat. I did a few calculations and determined that while sweat could not excrete a useful amount of ammonia from the body, it could clear the less toxic form of ammonia, urea, in clinically useful amounts. This was a major discovery. I realized in that moment it was my social responsibility to pursue this as a potential avenue of renal replacement therapy. I recognized that sweating had the potential to reduce dialysis dependence and improve the lives of all CKD patients, including the ones I had previously worked with.

**How would you explain or describe Third Kidney to kidney patients?**

The skin is the human body's largest organ. It has the potential to act as a "third kidney" when the native kidneys fail. There are many similarities between the sweat gland and the nephron. In short, sweat glands can support kidney function by excreting a good amount of what kidneys naturally excrete.

Based on prior scientific studies in humans, we know several facts about CKD patients using sweat therapy:

1. They lose of 4.2g of Potassium per 30-minute sauna session. Their Potassium decreased from





Dr. Keller CEO of Third Kidney, Inc. attending AAKP's National Patient Meeting (on right) with AAKP Ambassador Nichole Jefferson (left) and AAKP staff Erin Kahle (center)

The potential for home treatment, rather than treatment requiring travel, is another plus for sauna therapy. As a dialysis patient, saunas at home could be taken together with friends and family ultimately encouraging friendships and bonding.

Third Kidney currently is designing an operational medical-grade sauna capable for research and manufactured by the largest sauna manufacturer in the United States. With the proper support, production models would be available in September 2018 for safety trials.

**As an entrepreneur in the renal industry, you know well that it is not easy to develop a novel approach to treatment or enhanced care. What do you draw upon internally to keep your drive, optimism and focus on patients going at full speed during the tough days?**

The sense of social responsibility to this cause drives me. As a physician, I believe that making patients' lives better is the right thing to do. Third Kidney provides a way to accomplish that. In addition, I have spoken with the dedicated people who have pursued similar therapies in the past, and I have their encouragement to pick up where they left off. I also draw inspiration from other cultures and figures throughout history who have used sauna therapy for health and wellness. Ultimately, I think the best way to get through tough days is to have the support of people who believe in and care about your cause.

**By the year 2020 – what do you expect to see in terms of how care is provided**

an average of 5.9mg/dL to 5.5mg/dL with 4 weekly sauna baths.

2. Their Sweat to Plasma potassium ratio is 3:1.
3. Their Blood Urea Nitrogen is reduced from 110mg/dL to 80mg/dL after 6 consecutive days of treatment and still trending downward. They also experience decreased muscle cramping.
4. They were able to increase protein intake up to 60g/day.

The bottom line: sweat therapy treatment naturally removes what dialysis patients need removed.

**In regards to Third Kidney as a treatment option – what do you think are the most important things patients and their caregivers should know about this innovation?**

The most important thing to know is that sweat based therapies to treat kidney disease are physiologic. Your body is designed to perform these tasks and unlike dialysis, it doesn't always need to filter blood directly, potentially causing hypotension and other complications of dialysis. The skin is a natural storage space for toxins like urea, potassium, and salt.



Radiant Heat Bath by John H. Kellogg at the UPSTO museum

I admire Dr. John Harvey Kellogg. He was a late 19th / early 20th century physician who was the director of the Battle Creek, Michigan sanitarium. He was a major proponent of “phototherapeutic” treatment. His interest culminated in a seminal publication of *Light Therapeutics: A Practical Manual of phototherapy for the Student and Practitioner, with Special Reference to the Incandescent Light Bath*. His “light bath” utilized the electrical resistance of the light bulb filaments of over 100 light bulbs to produce enough heat to create his “light bath.” Dr. Kellogg worked tirelessly for his vision and was able to help many patients along the way. I am fortunate to be able to stand on the shoulders of a giant like Dr. Kellogg. 🌸

**to kidney patients, what immediate changes do you think can occur?**

By 2020, I expect that sauna therapy will be reducing the hours per day and days per week of required dialysis for CKD patients. I likewise expect that Third Kidney will have completed its medical grade sauna safety trial with support from Harvard Medical School, which already has been approved to begin.

I don’t expect any immediate changes in dialysis procedures, but when Third Kidney proves sweat based therapies work, we will need to be in close communication and coordination with dialysis facilities. Dry weight and Kt/v are drivers of the dialysis prescription and will be affected by sweat based therapies.

**Final question – AAKP believes this can reveal a lot about a person – who is one of your heroes and why?**



*Dr. Ray Keller, DO, is an exciting new face in CKD treatment and is focused on revolutionizing renal replacement therapy. Dr. Keller is a leading expert and published author in medical sweat therapy who has received numerous grants for his ongoing research into medical sweat therapy for the removal of uremia. He is a graduate of University of New England College of Osteopathic Medicine, with clinical experience at Mayo Clinic and Meadville Medical Center. Dr. Keller is a dog lover who enjoys fishing, boating, and snow shoeing in his free time.*





Bringing Home Therapy Excellence



- ☒ Take a walk
- ☐ Pick up the paper
- ☒ Go to work
- ☒ Walk the dog
- ☐ Water the lawn
- ☒ Have my dialysis treatment
- ☐ Visit with the grandkids

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## About AAKP

The American Association of Kidney Patients (AAKP) is a national non-profit organization founded by kidney patients for kidney patients. We are dedicated to improving the quality of life of kidney patients through education, advocacy and through fostering patient communities.

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We can be found under American Association of Kidney Patients on YouTube.