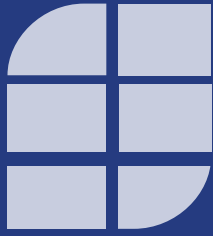


**20  
22**



**ANNUAL  
REPORT**

**[kidneyhealthinitiative.org](https://kidneyhealthinitiative.org)**



**The Kidney Health Initiative (KHI) is a public-private partnership among the American Society of Nephrology (ASN), the US Food and Drug Administration (FDA), and almost 90 member companies and organizations committed to catalyzing innovation and the development of safe and effective patient-centered therapies for people with kidney diseases.**

# CONTENTS

- 4**    **Message from the Chair**
- 5**    **Message from the Chair of the Patient and Family Partnership Council**
- 6**    **2022 Impact & Highlights**
- 10**   **Catalyzing Drug Development**
- 10**   **Catalyzing Device Development**
- 11**   **Catalyzing Biologics Development**
- 12**   **Member Organization**
- 14**   **KHI New Member Organizations 2022**
- 15**   **Acknowledgments**

## MESSAGE FROM THE CHAIR

It has been an eventful year for the Kidney Health Initiative. I am completing my term as chair of the Board of Directors and am delighted to pass the baton to Uptal Patel, M.D. We have also realigned the Board of Directors to more closely respond to the needs and concerns of KHI members with interests in drugs, biologics or devices.

KHI has undertaken a number of important projects during the past year that align with its mission and strategic priorities, including projects relating to knowledge and perception assessment of xenotransplantation, a human centered design toolkit for kidney failure, and endpoints for Complement 3 Glomerulopathy and for pediatric IgA Nephropathy, to name but a few. It has been my honor to be associated with KHI and I look forward to its continued success.

Sincerely,



**Raymond C. Harris, MD, FASN**  
Chair, Kidney Health Initiative



# MESSAGE FROM THE CHAIR OF THE PATIENT AND FAMILY PARTNERSHIP COUNCIL

In 2022, KHI's Patient and Family Partnership Council (PFPC) focused on strengthening their framework and processes to ensure that the PFPC will remain strong, continue to grow, and carry-on Celeste Castillo Lee's legacy. There was a large focus on updating governance and developing guidelines to firmly ground the PFPC and continue to bolster itself in the community. The PFPC continued to evolve the Patient Advisory Board (PAB) working group by planning and developing content so that the nephrology innovation community can continue to embed the patient voice into all aspects of care.

The PFPC mission continues to strengthen and advance. At the beginning of 2022, we welcomed Austin Lee and Curtis Warfield, MS, as new members to the PFPC. Both have strong backgrounds in kidney transplantation. Patrick O. Gee, Sr., PhD, became our Vice Chair. Patrick, Curtis, and Austin's passion and tenacity will help further the mission of the PFPC.

Thank you to Mary Baliker, Curtis, and Jack Lennon, MBA, for devoting so much time and energy into the PFPC Governance Task Force. The Governance Task Force analyzed, revised, and created streamlined or new processes for the nomination period, new members, current members, and Chair and Vice Chair roles. All members voted on these processes to ensure they were fair, transparent, and thoughtful. All PFPC members continued to work on the PAB working group. The PFPC also had a large presence at the KHI's meeting. Curtis spoke at our Annual Stakeholder Meeting and Leigh-Ann Williams, MS, MPH, Glenda V. Roberts, and Patrick presented at ASN Kidney Week in Orlando, Florida.

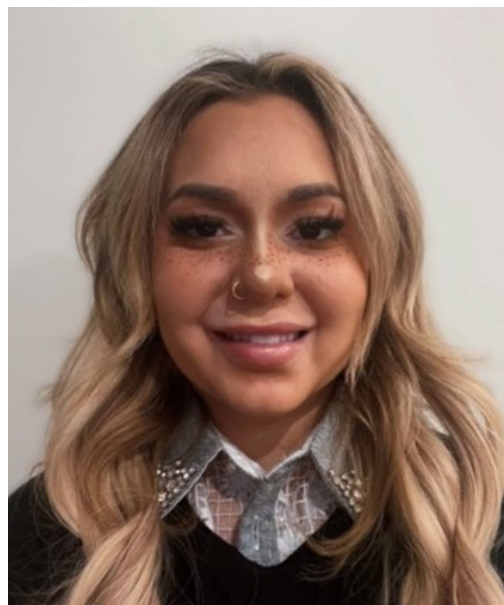
Thank you, Patrick, for operationalizing the 2022-year mission. Thank you to all PFPC members for their time, dedication, and hard work.

As my final year with the PFPC comes to an end, I'd like to thank all members of the PFPC, KHI staff, the FDA, and all KHI partner organizations. It was an honor to work with each and every one of you. I look forward to watching the PFPC continue to reach their goals and seeing what they will achieve in the future.



**Amanda Grandinetti, MPH**

Chair, Patient and Family Partnership Council



# 2022 IMPACT & HIGHLIGHTS



## KHI Hosts Stakeholder Meeting Highlighting Clinical Trial Diversity

The Stakeholder Meeting to **Break Down Clinical Trial Barriers to Achieve Health Equity** was held virtually on September 28, 2022. This meeting included presentations, panel discussions with live Q&A, and a networking event that focused on clinical trial diversity and community led initiatives to overcome barriers. The full recording from the event can be viewed [here](#).



## KHI Holds Three Sessions at ASN Kidney Week in Orlando, FL

### 1. Advancing Clinical Trials for People with Kidney Diseases: An Overview

This session was hosted by KHI and included Barbara Gillespie, MD, FASN (KHI Board of Directors), Glenda V. Roberts (KHI Patient and Family Partnership Council), Aliza Thompson, MD, MS (FDA Liaison to KHI Board of Directors), and Opeyemi Olabisi, MD, PhD (Duke University) to discuss strategies for clinical trials. The presentations included overviews on: surrogate endpoints and regulatory pathways for drug development, the importance of well-designed Patient Advisory Boards, and community engagement strategies for increasing clinical trial participation.

### 2. Building Capacity to Collect Patient Preferences Information for Innovative Kidney Devices

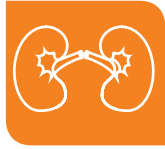
This session was moderated by ASN's Melissa West with Board of Directors Member Jennifer E. Flythe, MD, MPH, FASN, Carol Mansfield, PhD, and Michelle Tarver, MD, PhD as speakers.

This session discussed the FDA guidance for collecting patient preference information, reviewed methodological approaches, formative qualitative research, results of the research and discussed the risk and best practices for online surveys.

### 3. Future Shock: Transformational Therapies for Kidney Failure

This session was moderated by Board of Directors Chair Raymond C. Harris, MD, FASN, and ASN's Melissa West. Jonathan Himmelfarb, MD, FASN, Shuvo Roy, PhD, Jeremy S. Duffield, MBChB, MD, PhD, and PFPC member Leigh-Ann Williams, MS, MPH.

# 2022 IMPACT & HIGHLIGHTS



## Patient Preferences in Novel Kidney Device Development Completed

Access to scientifically rigorous patient preference information could inform the decisions of industry and regulators in the design and evaluation of new devices for people with kidney failure. This year marked the completion of a three-year contract between the FDA and KHI to collect patient preference information on a hypothetical wearable dialysis device. Several publications will highlight the study results and best practices.



## Publications



Click on any publication to open and read the link.

1. Development of a Patient Preference Survey for Wearable Kidney Replacement Therapy Devices
2. Kidney Health Initiative ESKD Data Standards Project
3. Conceptual Framework for Patient-Reported Outcome Measures in Clinical Trials of Skeletal Muscle Cramping Experienced in Dialysis
4. Biomarkers Reported to be Useful in Acute Kidney Injury
5. Roadmap for Accelerating the Development of Biomarkers for Acute Kidney Injury
6. Reducing the Risks of Home Dialysis Innovation and Uptake
7. Patient Perspective on Xenotransplantation



**5 New  
Member  
Organizations**



**4  
Completed  
Projects**



**51 Volunteers  
Participating in  
Workgroups**



**7  
Publications**

# 2022 IMPACT & HIGHLIGHTS





# 2022 IMPACT & HIGHLIGHTS

## New projects launched

### 1. Clinical trials in pediatric patients with IgA Nephropathy (IgAN)

In recent years, there has been a dramatic increase in drug development for IgAN; however, clinical trials are largely being conducted in adults. At this time, it is not clear whether the efficacy and safety of these treatments should also be assessed in children with IgAN, and, if so, how best to design studies to obtain the data needed to support use of novel therapies in this population. KHI's project approaches this issue by engaging subject matter experts to assess the current literature and trial landscape to formulate a community consensus on a path forward for developing therapies for children with IgA Nephropathy. Additionally, the project team will engage stakeholders who have clinical trial or registry data that can be used to inform natural history of disease research or identify biomarkers candidates and outcome measurements that advance therapies for children living with IgA Nephropathy. This data would then be shared to a central repository for analysis as a potential partnership.

### 2. Roadmap to increase disease awareness and clinical trial participation of people carrying high risk genetic variants of APOL-1 associated nephropathy

People with recent West African ancestry have an increased risk for developing kidney disease, with an estimated 4 in 10 Black Americans on dialysis having kidney failure caused by APOL1. Genetic risk factors include two high-risk variants of the APOL1 gene, which are found almost exclusively in people with recent West sub-Saharan African ancestry. 10%–15% of the Black population have a high-risk APOL1 genotype and up to 3% of the Black population may be affected.

This project will develop a roadmap that coordinates cross-sector partnerships to increase disease awareness and participation in APOL1-associated nephropathy clinical trials. Inclusivity of the entire community at-risk of APOL1 associated nephropathy, particularly those who may receive care in community health clinics, is an important principle that informs the design and utility of this project. Planned for completion in 2023, this resource will describe a collaborative APOL1 clinical trial engagement agenda that outlines: a) roles and key contributions of each stakeholder, b) approaches for engaging each stakeholder into an APOL1 focused collaboration, c) partnerships between stakeholder groups to support and sustain efforts that provide awareness and encourage APOL1 clinical trial participation, and c) resources that are needed for each stakeholder or can be shared by other stakeholders to strengthen outreach and engagement efforts. The intended audience of this roadmap includes trial sponsors, trial principal investigators, patient advisory boards, clinical care teams, community health clinics and other community organizations. This roadmap could also serve as a framework for other kidney clinical trial efforts that focus on communities of color.

# CATALYZING DRUG DEVELOPMENT

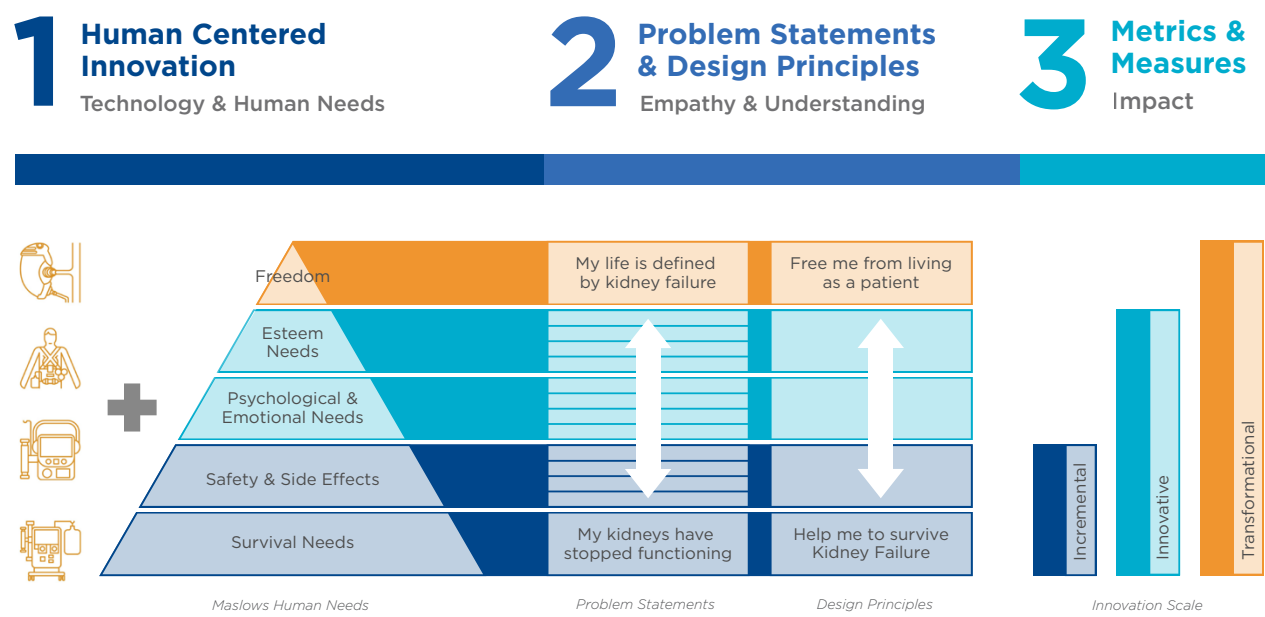
The community continues to make strides in drug development for people with kidney diseases. KHI continues to focus on clinical trial design, clinical trial endpoints, and biomarkers as integral areas for community alignment. In 2022, KHI continued its focus on the natural history for a rare kidney disease to identify key endpoint candidates for clinical trials and a consensus building effort to prioritize areas of interest for pediatric kidney diseases.

# CATALYZING DEVICE DEVELOPMENT

## Human-Centered Design Toolkit for Kidney Failure

Changing a person with kidney failure’s story to one of hope is the purpose of kidney replacement therapy innovations. To do that, product developers and researchers need to understand these stories. Human-centered design is a tool for gleaning needs and problem statements from consumer’s stories and integrating them into the design of products. The [Human-Centered Design Toolkit for Kidney Failure](#) provides innovators developing kidney replacement therapies with empathy tools to facilitate their interactions with people with kidney failure to enable market segmentation and provide a framework for a customer requirements document.

The Toolkit is intended to help build better alternatives to conventional dialysis by better understanding the problems people with kidney failure face.



# CATALYZING BIOLOGICS DEVELOPMENT

Biologics are often not easily identified or characterized, and many are manufactured using biotechnology, including blood components and derivatives, vaccines, allergenics, cellular and gene therapies, and tissues for transplantation. These include numerous products that are living microorganisms, cells or tissues from humans or animals, and products that are derived from them, such as stem cells and genetically engineered immune cells.

These products frequently represent cutting-edge biomedical research and, in time, may offer the most effective means to treat a variety of medical illnesses and conditions that presently have few or no other treatment options.

KHI's inaugural project for Assessing Knowledge and Perception of Xenotransplantation represents the first step in addressing stakeholder needs. Future KHI initiatives may focus on communicating the risk/benefits of new biotechnologies that currently have limited clinical information.

# MEMBER ORGANIZATIONS

## FEDERAL PARTNERS



U.S. Department  
of Veterans Affairs

## DEVICE MANUFACTURERS, DIAGNOSTICS COMPANIES, BIOTECH COMPANIES, AND DIGITAL HEALTH



Wearable Artificial Organs, Inc.

## KIDNEY CARE AND DIALYSIS PROVIDERS



## PHARMACEUTICAL COMPANIES



# MEMBER ORGANIZATIONS

## NON-PROFITS



## HEALTH CARE PROFESSIONAL ORGANIZATIONS



## CONTRACT RESEARCH ORGANIZATIONS



## FOUNDATIONS AND PATIENT ORGANIZATIONS



## RESEARCH INSTITUTIONS



## NEW KHI MEMBER ORGANIZATIONS 2022

Learn more about how these diseases organizations are working towards improving the lives of people with kidney disease.



**Invizius:** Invizius' proprietary H-Guard® biotechnology aims to transform care on dialysis and other extra-corporeal treatments by reducing inflammation.

---



**Maze Therapeutics:** Maze Therapeutics uses human genetics, functional genomics and data science to inform treatment for patients with severe rare and common diseases. They combine their COMPASS platform with drug and technology innovation to develop medicines for these diseases.

---



**Pulse Data:** Pulse Data's AI technology advances diagnosis and prediction of adverse effects for cardiorenal patients.

---



**Sanofi:** Sanofi is an innovative healthcare company focused on creating life-changing treatments and vaccines for millions of people globally.

---



**Talaris Therapeutics:** Talaris is a late-clinical stage cell therapy company developing new therapies for organ transplantation and severe immune and blood disorders.

# ACKNOWLEDGMENTS

**Thank you to the Board of Directors, Project Workgroup Chairs, and the KHI Patient & Family Partnership Council for making this work possible.**

## BOARD OF DIRECTORS AND FEDERAL LIAISONS

**Paul T. Conway**

American Association of Kidney Patients

**Bruce Culleton, MD**

CVS Kidney Care

**Jennifer E. Flythe, MD, MPH, FASN**

University of North Carolina Kidney Center

**Kevin J. Fowler**

Voice of the Patient, Inc.

**Barbara S. Gillespie, MD, FASN**

Labcorp

**Nicolas J. Guzman, MD**

AstraZeneca

**Raymond C. Harris, MD, FASN**

Vanderbilt Center for Kidney Disease  
*KHI Chair*

**Meg Jardine, MBBS, PhD**

University of Sydney

**Annamaria T. Kausz, MD, MS**

ATK Pharma Strategies LLC

**Jeffrey Lawson, MD, PhD**

Duke University

**Vandana Dua Niyar, MD, FASN**

Emory University

**Thomas D. Nolin, PharmD, PhD**

University of Pittsburgh

**Ikenna Okezie, MD, MBA**

Somatus, Inc.

**Uptal Patel, MD**

AstraZeneca

**Alain Romero, PhD, PharmD**

Global Blood Therapeutics

**Amit Sharma, MD, FASN**

Bayer Pharmaceuticals

**Howard Trachtman, MD, FASN**

University of Michigan

**Amy Young**

DaVita Clinical Research

**Frank P. Hurst, MD, FASN**

Center for Drug Evaluation and Research (CDER), FDA

**Meda E. Pavkov, MD, PhD**

Centers for Disease Control (CDC)

**Prabir Roy-Chaudhury, MD, PhD FASN**

University of North Carolina Kidney Center

*ASN Council Liaison*

**Kristen Miller, PharmD**

Office of Medical Policy, CDER, FDA  
*FDA Point of Contact*

**James P. Smith, MD, MS**

Center for Drug Evaluation and Research (CDER), FDA

**Robert A. Star, MD**

National Institute of Diabetes and Digestive Kidney Diseases (NIDDK)

**Aliza M. Thompson, MD, MS**

Center for Drug Evaluation and Research (CDER), FDA

**Celia Witten, MD, PhD**

Center for Biologics Evaluation and Research (CBER), FDA

## EX OFFICIO

**Amanda Grandinetti, MPH**

KHI Patient and Family Partnership Council Chair

## PROJECT WORKGROUP CHAIRS AND STEERING COMMITTEE MEMBERS

**Ogo Egbuna, MD**

Vertex Pharmaceuticals

**Jennifer E. Flythe, MD, MPH, FASN**

University of North Carolina Kidney Center

**Patrick O. Gee, Sr., PhD, JLC**

KHI Patient and Family Partnership Council, APOLLO Community Advisory Committee, Evidation Health

**Stuart Goldstein, MD**

Cincinnati Children's Hospital Medical Center

**Keisha Gibson, MD, MPH, FASN**

University of North Carolina Kidney Center

**Barbara Gillespie, MD, MS**

Labcorp, University of North Carolina

**Raymond C. Harris, MD, FASN**

Vanderbilt University

**Eduardo K. Lacson, Jr., MD, MPH**

Dialysis Clinic, Inc.

**Christine Lee, PhD, PharmD**

FDA-liaison, Office of Minority Health and Health Equity

**John C. Lieske, MD, FASN**

Mayo Clinic

**Laura Mariani, MD, MS**

University of Michigan

**Dawn S. Milliner, MD**

Mayo Clinic

**Susanne B. Nicholas, MD, PhD**

ASN Health Care Justice Committee (Clinical Care and Innovation Team); University of California at Los Angeles

**Carla M. Nester, MD, MS, FASN**

University of Iowa

**Uptal D. Patel, MD**

AstraZeneca

**Michelle M. Richardson, PharmD, BCPS**

Tufts Medical Center

**Glenda V. Roberts**

APOLLO Community Advisory Committee, Center for Dialysis Innovation, Kidney Research Institute

**Michelle Tarver, MD, PhD**

FDA-liaison, Center for Devices and Radiological Health

**Aliza M. Thompson, MD, MS**

FDA-liaison, Center for Drug Evaluation and Research

**Joshua M. Thurman, MD**

University of Colorado

**Howard Trachtman, MD, FASN**

University of Michigan

**Katrin Uhlig, MD, MS**

Agios Pharmaceuticals

**Eric W. Young, MD**

Arbor Research Collaborative for Health



# ACKNOWLEDGMENTS

## PATIENT & FAMILY PARTNERSHIP COUNCIL



**Mary Baliker**



**Vanessa A. Evans**



**Derek Forfang**



**Patrick O. Gee, Sr., PhD**  
*Vice Chair*



**Amanda Grandinetti, MPH**  
*Chair*



**Austin Lee**



**Jack Lennon, MBA**



**Glenda V. Roberts**



**Curtis Warfield, MS**



**Leigh-Ann Williams, MS, MPH**

## STAFF



**Mark D. Lim, PhD, PMP**  
Vice President,  
Research, Discovery,  
and Innovation



**Lynnee Galley**  
Director, Research,  
Discovery, and  
Innovation



**Cesia Portillo, MPH, CHES**  
Program Coordinator,  
Kidney Health Initiative



**Meaghan Malley**  
Program Manager,  
Kidney Health Initiative



**Zachary Cahill**  
Artificial Kidney  
Product Specialist,  
Research, Discovery, and  
Innovation



**Abigail Martin**  
Program Associate,  
Research, Discovery,  
and Innovation



**Elisheba Wilson**  
Administrative Associate,  
Research, Discovery,  
and Innovation



This page is intended to be blank.



**[kidneyhealthinitiative.org](http://kidneyhealthinitiative.org)**

1401 H St NW, Suite 900  
Washington, DC, 20005  
[khi@asn-online.org](mailto:khi@asn-online.org)