

Unleashing the Power of Patients and Health Professionals to Reassert the Value of Nephrology

Global Innovations in Patient-Centered Kidney Care

Thursday, May 23, 2019



School of Medicine
& Health Sciences

THE GEORGE WASHINGTON UNIVERSITY

Disclosures for Tod Ibrahim

- ▶ Executive Vice President of the American Society of Nephrology (ASN)
- ▶ Executive Vice President of the ASN Foundation for Kidney Research
- ▶ President-Elect of the Council of Medical Specialty Societies
- ▶ Member of the American Society of Microbiology Audit Committee
- ▶ Investor in Thompson Italian (in Falls Church, VA)



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ASN Alliance for Kidney Health

To prevent, treat, and cure kidney diseases throughout the world by educating health professionals and scientists, advancing innovation, communicating knowledge, and advocating for patients (since 1966)



To prevent and cure kidney diseases through research and innovation (since 2012)



To advance scientific understanding by creating a collaborative environment in which the Food and Drug Administration and the kidney community can interact to optimize kidney health and the evaluation of drugs, devices, biologics, and food products in partnership with FDA (since 2012)



To engage nephrologists as team leaders to target zero infections by actively pursuing the elimination of preventable infections in dialysis facilities in partnership with the Centers for Disease Control and Prevention (since 2016)



To accelerate innovation in the prevention, diagnosis, and treatment of kidney diseases in partnership with the Department of Health and Human Services (since 2018)

ASN Alliance for Kidney Health: Decision-Making Mantra

1. What is best for people with kidney diseases and their families?
2. What is best for strengthening the relationship between patients and their health professionals*?
3. What is best for the specialty of nephrology?
4. What is best for the kidney community?
5. What is best for the ASN Alliance for Kidney Health?
 - Vision, mission, and goals
 - Resources
 - Margin

*In 2016, ASN defined professionals as “physicians, scientists, doctors of pharmacy, pharmacists, advanced practice providers, nurses, dietitians, and social workers.”

“You must never confuse faith
that you will prevail in the end....
with the discipline to confront the most brutal facts
of your current reality.”

—US Commander James Bond Stockdale

Nephrology in 2019

Confront the Brutal Facts of Your Current Reality

1. Kidney diseases lack appropriate recognition, respect, and sense of urgency

850,000,000+

People worldwide have kidney diseases

40,000,000+

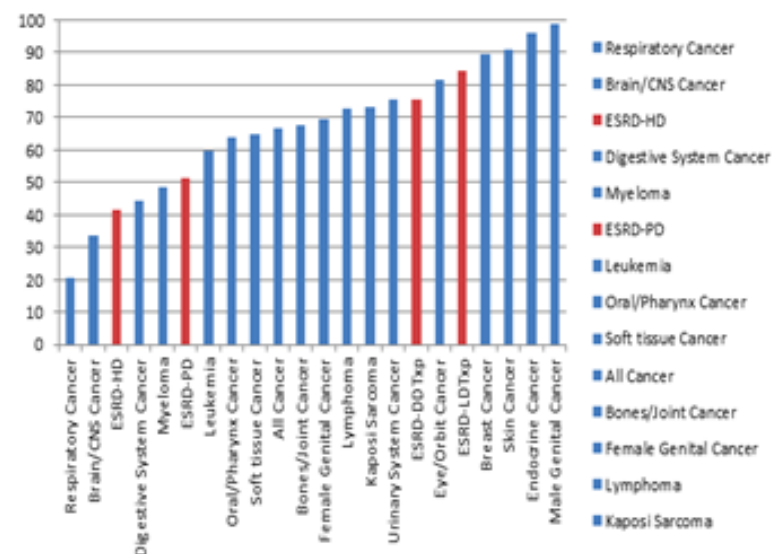
People in the United States have kidney diseases

Treating kidney diseases costs
the US healthcare system

\$99 billion

(\$35 billion for kidney failure alone)

5 Year Survival of Cancers and ESRD (by treatment)



2. The cost to the healthcare system of treating kidney failure is unsustainable



700,000

Americans have kidney failure

100,000 START DIALYSIS
every year: >50% of them will
DIE WITHIN 5 YEARS

1% Medicare population has kidney failure



7% Medicare budget dedicated to their care



\$35 BILLION
Annual Medicare Spend

3. The federal government underfunds kidney research

Disease	Prevalence	FY 2015 Appropriation	NIH Spending Per Patient
HIV/AIDS	1,200,000	\$3,000,100,000	\$2,500.08
Cancer	14,500,000	\$5,389,000,000	\$371.66
Heart Disease	27,600,000	\$3,679,000,000	\$133.30
Kidney Diseases	40,000,000	\$564,000,000	\$14.10
	37,000,000	\$564,000,000	\$15.24
	31,000,000	\$564,000,000	\$18.19
	26,000,000	\$564,000,000	\$21.69
	20,000,000	\$564,000,000	\$28.20

3rd & G St SE 



**EVERY HOUR
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alzheimer's  association
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Despite the recent increased investment in Alzheimer's research, funding still falls short of the need.

- For fiscal year 2019, Congress provided an additional \$425 million in Alzheimer's research funding at the National Institutes of Health (NIH).
- With this increase, along with previous research investments, the NIH is expected to spend \$2.3 billion on Alzheimer's research in 2019.
- However, this is still short of the total funding scientists and the federal Alzheimer's Advisory Council have indicated is necessary for continued progress.

4. Venture capital has little interest in kidney diseases

DEALS | \$ MILLIONS

■ Early Stage ■ Late Stage ■ Undesignated



Trends:



Orthopedic



NIM
Drug Delivery

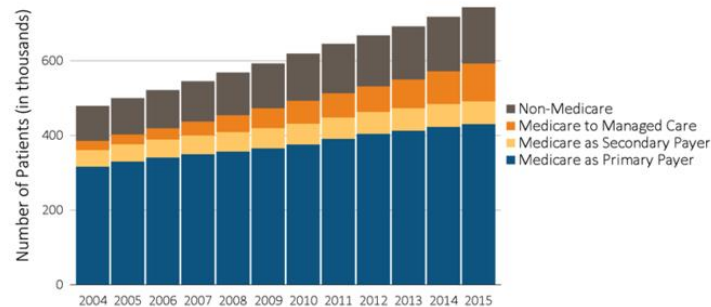
Logos represent \$25M+ financings

5. Less innovation exists around kidney diseases

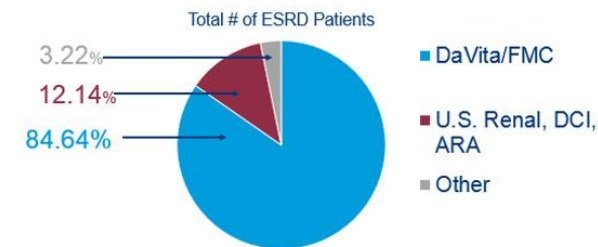
	Drug Approvals (Total)	Cancer	Kidney Diseases
2015	46	15	2
2016	22	6	1
2017	31	8	1
Total	99	29	4

6. Dialysis—a federal program that pays through a bundle and is dominated by a duopoly—defines nephrology

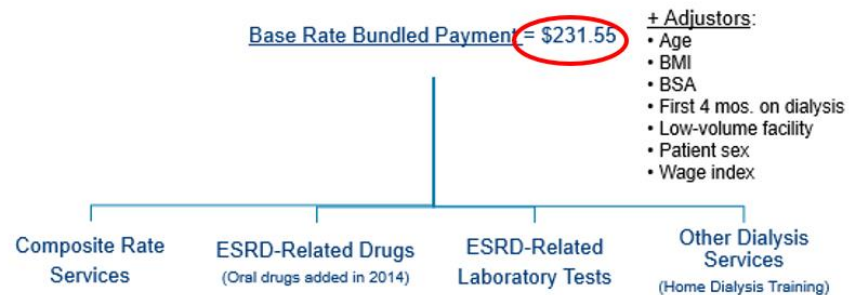
Single Payer (Virtually)



Consolidation



Fixed Bundled Payments

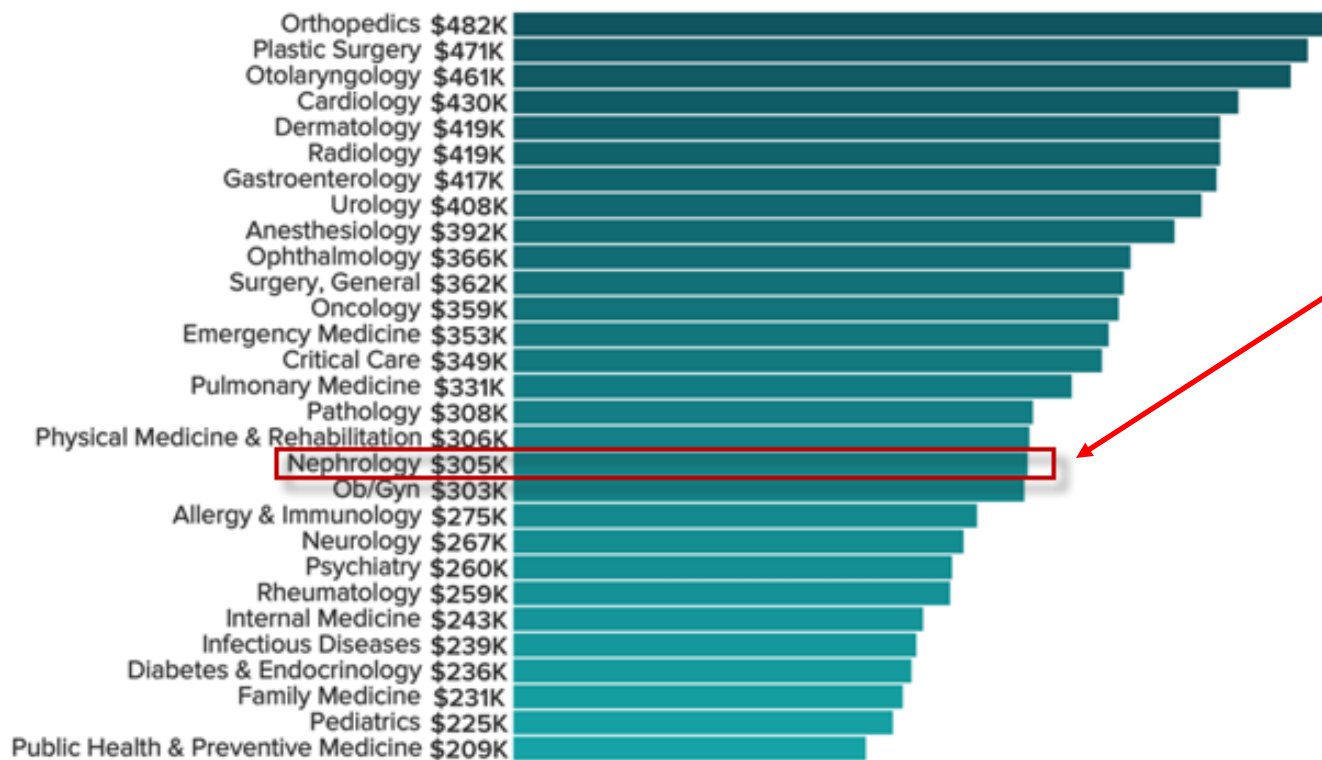


For-Profit Healthcare



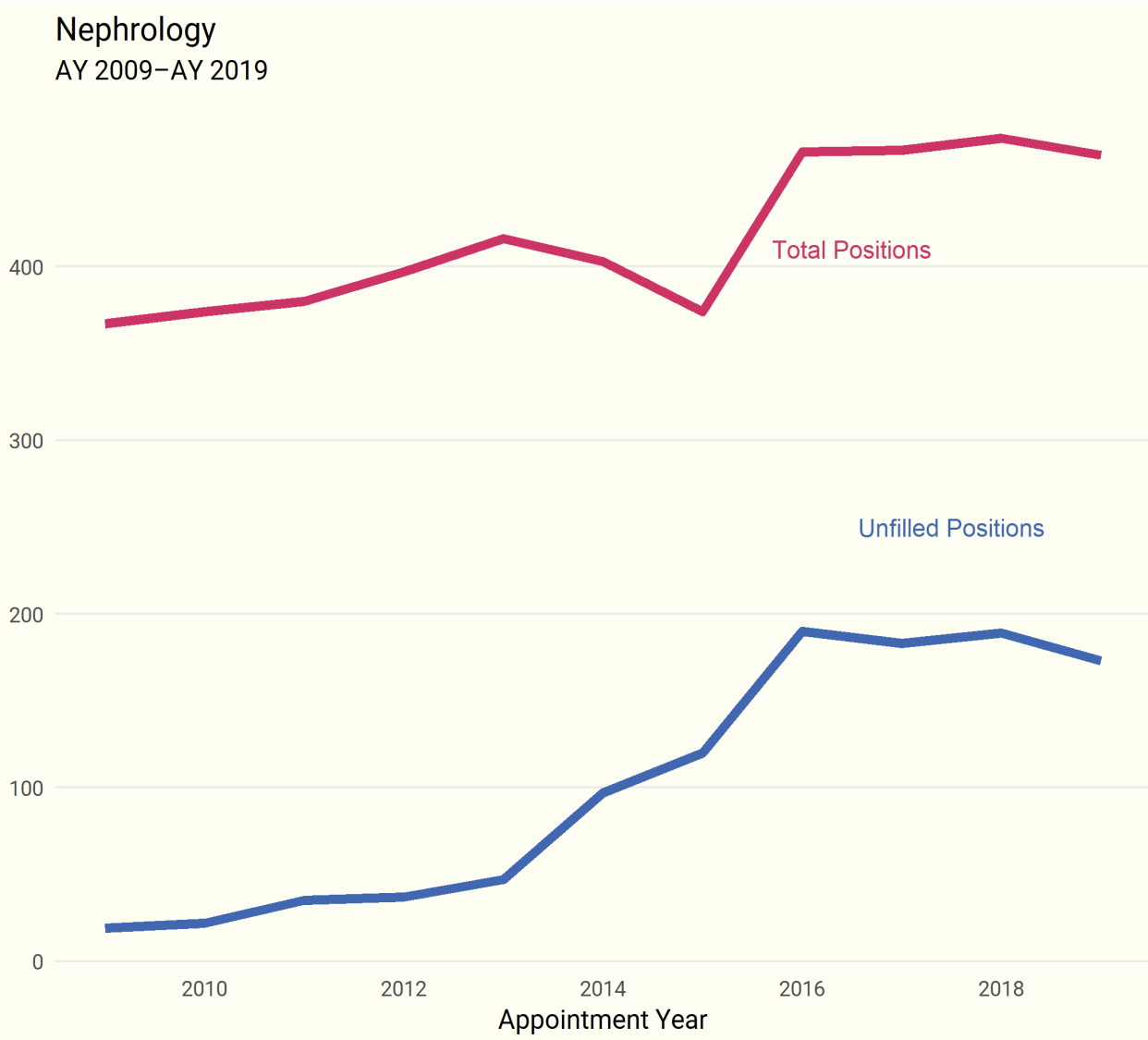
7. Nephrologists are underpaid compared to other specialists and their value to the system

Average Annual Physician Compensation



2019 Merritt-Hawkins Revenue Survey			
Specialty	Mean Revenue	Mean Salary	ROI
Internal_Medicine	\$2,675,387.00	\$261,000.00	925.05%
Family_Practice	\$2,111,931.00	\$241,000.00	776.32%
Cardiovascular_Surgery	\$3,697,916.00	\$425,000.00	770.10%
General_Surgery	\$2,707,317.00	\$350,000.00	673.52%
Pediatrics	\$1,612,500.00	\$230,000.00	601.09%
Psychiatry	\$1,820,512.00	\$261,000.00	597.51%
Neurology	\$2,052,884.00	\$301,000.00	582.02%
Hematology/Oncology	\$2,855,000.00	\$425,000.00	571.76%
Nephrology	\$1,789,062.00	\$272,000.00	557.74%
OB/GYN	\$2,024,193.00	\$324,000.00	524.75%
Orthopedic_Surgery	\$3,286,764.00	\$533,000.00	516.65%
Gastroenterology	\$2,965,277.00	\$487,000.00	508.89%
Cardiology_(Invasive)	\$3,484,375.00	\$590,000.00	490.57%
Pulmonology	\$2,361,111.00	\$418,000.00	464.86%
Urology	\$2,161,458.00	\$386,000.00	459.96%
Cardiology/Non-Inv.	\$2,310,000.00	\$427,000.00	440.98%
Neurosurgery	\$3,437,500.00	\$687,000.00	400.36%
Ophthalmology	\$1,440,217.00	\$300,000.00	380.07%
Otolaryngology	\$1,937,500.00	\$405,000.00	378.40%

8. Nephrology remains an unattractive career option



AY	Total	Unfilled	Filled
2009	367	19	348
2010	374	22	352
2011	380	35	345
2012	397	37	360
2013	416	47	369
2014	403	97	306
2015	374	120	254
2016	466	190	276
2017	467	183	284
2018	474	189	285
2019	464	173	291
	26.4%		-16.4%

9. Healthcare professionals, including nephrologists, face (at least) nine existential threats

Professional

Ecosystem

Health system integration

Employed physicians

Private equity

Professional

Expectations

Value-based care

Electronic health records

Maintenance of Certification

Personal

Anxiety

Work-life balance

Student debt

Burnout

Nephrology in 2019

Maintain Faith that You Will Prevail in the End

1. Focus on improving kidney care and kidney health

Step 1

Refer to kidney diseases and kidney failure, because CKD and ESRD/ESKD are meaningless outside the kidney community



Step 2

Shift from CKD and ESRD/ESKD and organize the kidney community and other stakeholders around key areas, such as:

1. Cardiorenal
2. Diabetic Kidney Diseases
3. Genetic Kidney Diseases
4. Acute Kidney Injury
5. Dialysis
6. Transplantation
7. End-of-Life Care

Step 3

Use this new way of thinking about kidney diseases and kidney failure to focus on improving care in specific areas, such as:



- ✓ AKI!Now: Promoting Excellence in the Prevention and Treatment of AKI
- ✓ Diabetic Kidney Disease: A Call to Action

2. Convince the federal government to care about kidney diseases: regulatory

- *“...One of the key reasons for our failing policies is that kidney care in particular has some of the worst incentives in American healthcare.”*
– **HHS Secretary Alex M. Azar, II**
- I’ve never seen this much cooperation on one issue. The buy-in across HHS is absolutely wild. Kidney diseases are like cancer and Alzheimer’s now.
– **Paraphrasing a government employee**
- HHS will unveil a “kidney strategy” soon: Think “Kidney Moonshot.”

‘Kidney Moonshot’



Eric D. Hargan  @DepSecHargan · 22h

First, we need more efforts to prevent, detect, and slow the progression of kidney disease. We also need to provide patients with kidney failure more options for treatment, from both today's technologies and those of the future.



Eric D. Hargan  @DepSecHargan · 22h

And third, we need to deliver more organs for transplants and develop wearable and implantable artificial kidneys, so we can help more Americans escape the burdens of today's dialysis altogether.

3. Convince the federal government to care about kidney diseases: legislative

Congress of the United States
Washington, DC 20515

March 28, 2019

The Honorable Rosa DeLauro
Chairman
House Committee on Appropriations
Subcommittee on Labor, HHS,
Education and Related Agencies
Washington, DC 20515

The Honorable Tom Cole
Ranking Member
House Committee on Appropriations
Subcommittee on Labor, HHS,
Education and Related Agencies
Washington, DC 20515

Dear Chairman DeLauro and Ranking Member Cole:

We write to request that \$25 million in matching funds be included for KidneyX, a public-private partnership to accelerate innovation in the prevention, diagnosis, and treatment of kidney diseases, in the Fiscal Year (FY) 2020 Labor, Health and Human Services, Education and Related Agencies Appropriations bill.

More than 40 million people in the United States are living with kidney diseases, and more than 700,000 have kidney failure, for which there is no cure. Despite the significant burden of kidney diseases, there has been a dearth of innovation in this space compared to other areas of medicine. Our health care system has fostered a sense of complacency with current therapies and technologies, and complex barriers deter innovators and investors from entering the kidney care space to develop therapies that improve the quality of life for patients and bring better value to the system. Americans affected by kidney diseases deserve better.



Am Soc Nephrology @ASNKidney · 3h





WOW - fantastic news!

#KidneyX #KidneyXSummit

ASN Advocacy @ASNAdvocacy

House LHHS bill released this afternoon with \$10M appropriation for @Kidney_X . Great news for kidney patients and their families. Thank you Congress.

4. Attempt to increase reimbursement

	Government	Private Sector
Innovative	<div></div> <ul style="list-style-type: none">• Pilot comprehensive care models• Attempt to align incentives to:<ul style="list-style-type: none">○ Improve kidney care○ Prevent or slow progression	<div></div> <ul style="list-style-type: none">• Continue to strengthen relationships with insurers• Begin to engage new “disrupters”
Traditional	<div></div> <ul style="list-style-type: none">• Attempt to bring parity to other aspects of kidney care• Use monthly capitated payment (which incentivizes dialysis) as an example	<div></div> <ul style="list-style-type: none">• Reach agreement on areas that can be modified• Determine what academic effort is not being compensated, which varies institution to institution

5. Encourage nephrologists to be reimbursed for telehealth (and to care for patients in their own homes)

- Nephrology is the **first** specialty to secure reimbursement for treating patients in their own homes via telehealth
- **New telehealth policy** started January 1, 2019:
 - ✓ Makes all home dialysis patients (PD and HHS) eligible
 - ✓ Counts for the monthly capitated payment (MCP) visit only
 - ✓ Requires in-person face-to-face visit every three months
 - ✓ Remains entirely voluntary for either patient or nephrologist

**Modern
Healthcare**

**Chronic Care Act breaks down
barriers to telemedicine use**

6. Foster innovation, new therapies, and product development



ASN Foundation
for Kidney Research

Time for a Cure



KIDNEY HEALTH INITIATIVE



Surrogate Endpoints for
Clinical Trials in FSGS and IgAN

Digital Day News

LEADING NEWS PROVIDER

HOME / 2019 / APRIL / 24 / FOCAL SEGMENTAL GLOMERULOSCLEROSIS (FSGS) MARKET VALUATION WILL REACH US\$15.83 BN BY THE END OF 2025

Focal Segmental Glomerulosclerosis (FSGS) Market Valuation will Reach US\$15.83 bn by the end of 2025

Approximately 16 clinical trials
underway for FSGS, IgAN, C3G, etc.

Pre-clinical

Pre-Competitive/Translational

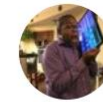
Commercialization

Inaugural KidneyX Summit: April 29-30, 2019



Alexis Denny PKD @adennypkd · 19h

Great hearing from Shuvo Roy about the implantable kidney. Been tracking this for a long time, and especially since he was the 2016 PKD National Convention keynote speaker. Congratulations on your [#KidneyX](#) prize! [@KidneyProject](#) [@PKDFoundation](#) [@UCSF](#) [@Kidney_X](#) [#endPKD](#)

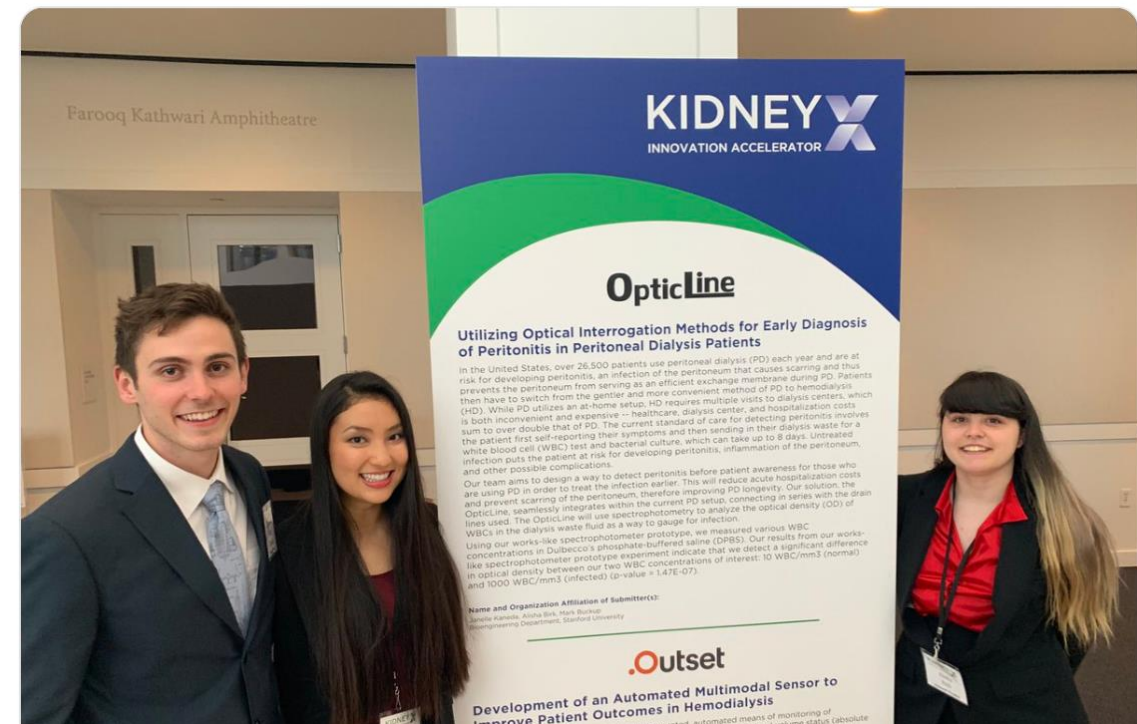


Jesse Roach

@roachjl

Following

One of the many great stories of [@Kidney_X](#), Stanford undergrads who developed a novel method to detect peritonitis in PD patients. We are getting new people to think about kidney disease which leads to more innovation. [@Abirk96](#) [@StanfordBioE](#) [@StanfordMed](#)



7. Cultivate strong leaders and mentors as well as embrace diversity and inclusion

- Promote diversity and inclusiveness within ASN to enrich the nephrology profession and kidney community as well as improve the lives of people with kidney diseases
- Strengthen the pipeline of health professionals, scientists, and educators in nephrology
- Develop resources for career development for each ASN member at every stage in professional life by focusing on leadership development and culture change



8. Align certification and recertification with the reality of the specialty

1. Cardiology Option (Separate Training and Certificates)

- Adult Congenital Heart Disease
- Advanced Heart Failure and Transplant Cardiology
- Cardiovascular Disease
- Clinical Cardiac Electrophysiology
- Interventional Cardiology

2. Hospital Medicine Option (Focused Practice at Recertification)

3. Pulmonary-Critical Care Option (Joint Training and Certificates)

9. Reimagine fellowship training in nephrology

- Apply for nephrology to participate in the ACGME Advancing Innovation in Residency Education (AIRE) Program (2019)
- Invite Nephrology Fellowship Training Programs to submit proposals for innovative pilot programs (2020)
- Pilot at least one of these innovative approaches in four to six ACGME-accredited training programs (2021)
- Use the results of this pilot to consider reimaging fellowship training (2023)



Accreditation Council for
Graduate Medical Education



American Board
of Internal Medicine®



How can you help reassert the value of nephrology?

1. Confront the brutal facts but never lose faith
2. Use every opportunity to advocate for yourself and for the kidney community
3. Demand that every member of the kidney community embrace one number
4. Help change the lexicon to kidney diseases and kidney failure
5. Participate actively in patient organizations like AAKP
6. Make the ASN Alliance for Kidney Health more patient-directed:
 - ASN education, communications, policy and advocacy, and workforce
 - KHI
 - NTDS, AKI!Now, and DKD: A Call for Action
 - KidneyX, including patient innovation prize
7. Unleash your inner pirate

“Innovation is a pirate ship
that sails into a yacht club.”

—Lisa Bodell