

# 2019 CAIRIBU MEETING SUMMARY

## Collaborating for the Advancement of Interdisciplinary Research in Benign Urology

NIDDK George M. O'Brien Centers Cooperative Research Program in Benign Urology (U54)

NIDDK Developmental Centers for Interdisciplinary Research in Benign Urology (P20)

NIDDK Urologic Research (KURE) and Urological Epidemiology (KUroEpi) Institutional Research Career Development Programs (K12)

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Thanks to all who participated in the 2019 CAIRIBU meeting. We welcomed new P20 Centers into the CAIRIBU community – **Duke University** (PI, Pei Zhong, PhD); **Vanderbilt University** (PI, Mara Hadjifrangiskou, PhD); and **University of Tennessee** (PI, Georgi Petkov). Speakers and posters from these Centers presented work both completed and planned. The PI of the 4<sup>th</sup> new P20 Center, Kelvin Davies, PhD, of the **Albert Einstein College of Medicine**, was unable to attend. Although the UCSF P20 Center (PI, Tom Chi, MD) completed its 2-year cycle in 2019, the Center's work was represented in poster sessions.

### Other P20 Centers were also represented in scientific sessions and posters:

- Harvard University (PI, Mark Zeidel, MD)
- University of Alabama at Birmingham (PI, Dean Assimos, MD)
- NorthShore University Health System/Purdue University, PIs, Simon Hayward, PhD, and Timothy Ratliff, PhD)
- Columbia University (PI, Simone Sanna-Cherchi, MD)
- Washington University (PI, Indira Mysorekar, PhD)

Of 72 CAIRIBU meeting participants, **about half were trainees** (current or prior K scholars, post-docs, graduate and undergraduate students), and the other half were established investigators. **Eleven K scholars represented 2 KUroEpi and 2 KURE Programs:**

- UCSF/Kaiser Permanente KUroEpi Program (PIs, Alison Huang, MD; Stephen Van Den Eeden, PhD)
- University of Michigan KUroEpi Program (PIs, Aruna Sarma, PhD; Quentin Clemens, MD)
- Duke University KURE Program (PI, Cindy Amundsen, MD)
- University of Wisconsin-Madison (PIs, Dale Bjorling, DVM; Wade Bushman, MD, PhD)

Collectively, a little more than 1/3 of participants were from **CAIRIBU U54 O'Brien Centers:**

- Columbia University (PIs, Cathy Mendelsohn, PhD; Ali Gharavi, MD; Jonathan Barasch, MD, PhD)
- University of Pittsburgh (PI, Zhou Wang, PhD)
- University of Wisconsin-Madison (PI, Will Ricke, PhD)

The **NIDDK** (Chris Mullins, PhD, and Tamara Bavendam, MD, MS) and the **O'Brien Centers External Experts Panel** (chairman, Mark Nelson, PhD) were also represented.

### NEXT CAIRIBU MEETING

**December 2-4, 2019.** Same format as this year: begin at 1:00 pm on Wednesday and conclude at 1:00 pm Friday.

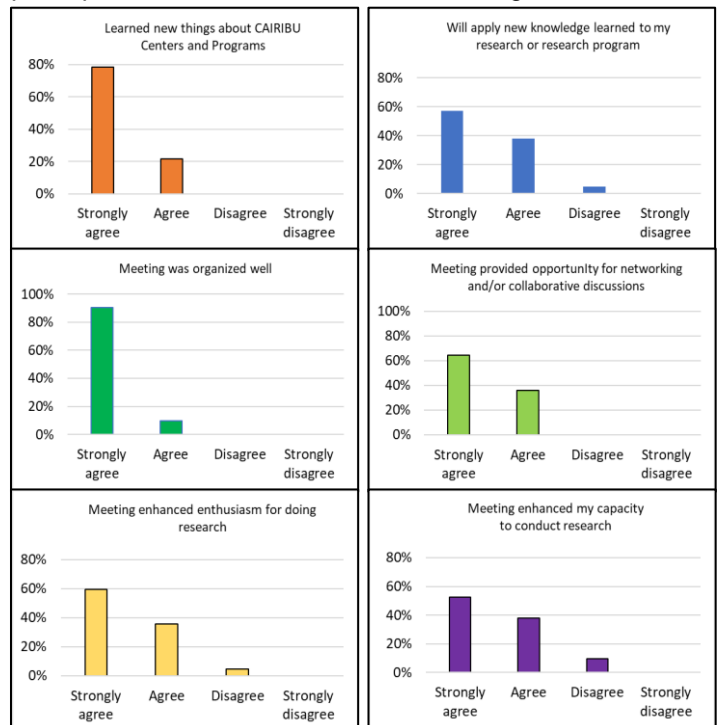
New this year was a **trainees meeting** on Wednesday morning. About 20 trainees participated and collaboratively identified specific training and career needs and generated ideas for ways CAIRIBU can address these needs.



**Dr. Dorrie Lamb** provided input during breakout sessions and offered tips on how to successfully transition into academic careers. **This meeting was an overwhelming success. Plans to continue something similar for the 2020**

**CAIRIBU meeting will soon be underway.** The trainee organizers of the meeting began planning the event several months ago, invited the attendees, and led the meeting. Congratulations to these trainees for a job well done: **Teresa Liu** (K Scholar, UW-Madison KURE Center), **Scott Bauer** (K Scholar, UCSF/Kaiser KUroEpi Program), **Renee Vickman** (post-doc, NorthShore/Purdue P20 Center), and **Maryellen Kelly** (K Scholar, Duke University).

**CAIRIBU MEETING EVALUATION:** Surveys received from participants were favorable for the following items:



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### NIDDK CAIRIBU SUPPORT:

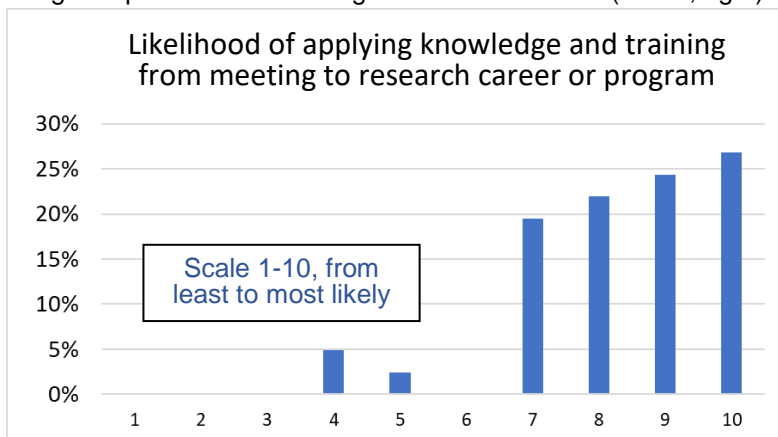
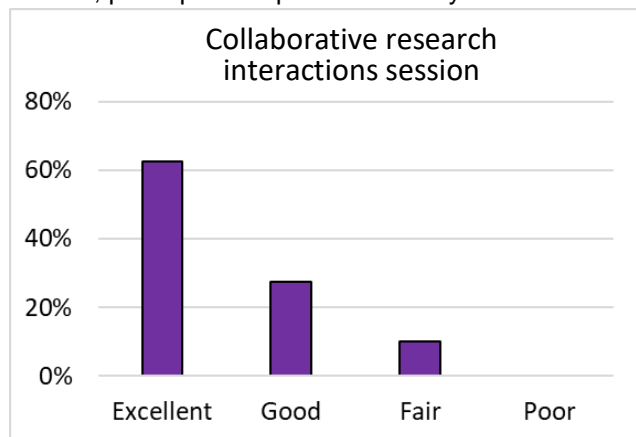
Chris Mullins, PhD – Program Official  
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Kristina Penniston, PhD – Interactions Director

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Completed evaluations were received from >50% of meeting participants. The figure at left below shows that the collaborative research interactions activities were rated very favorably. Moreover, from self-reported changes in knowledge about **collaborative and interdisciplinary research** (rated on a 5-point Likert scale), the increase in knowledge was high – mean, 1.0 (range 0.75-1.5). Thanks to Dr. Betsy Rolland, Director of Team Science at UW-Madison and one of our keynote speakers, for providing a solid foundation to CAIRIBU collaboration-building efforts.

Among the scientific sessions (urology anatomy & physiology; animal models, imaging, & surgical techniques; how to think about the “big questions” in benign urology research; and crossdisciplinary approaches to studying fibrosis and inflammation), the increase in knowledge for **inflammation and fibrosis in benign urology** was highest, mean, 0.9 (range, 0.50-1.4).

Overall, participants reported that they would use knowledge acquired at the meeting in future endeavors (below, right).



## CAIRIBU MEETING MODERATED POSTER SESSIONS

**Best Posters:** 37 posters were presented in 2 sessions. In the general moderated poster session, “best poster” awards were given to 8 presenters in 4 topical categories; 6 CAIRIBU programs/centers were represented. This session was moderated by **Dr. Marvin Langston**, K Scholar in the UCSF/Kaiser Permanente KUroEpi Program.

### Bladder

1. **Maryellen Kelly, DSc, MSN** (Duke University KUre Program)
2. **Bisiayo Fashemi, doctoral candidate** (Washington University P20 Center)
3. **Taro Igarashi, MD** (University of Pittsburgh U54 Center)

### Development

- **Dina Ahrum, PhD** (Columbia University P20 Center)

### Prostate

1. **Wei Chen, PhD** (University of Pittsburgh U54 Center)
2. **Marvin Langston, PhD** (UCSF/Kaiser Permanente KUroEpi Program)
3. **Laura Pascal, PhD** (University of Pittsburgh U54 Center)

### Urolithiasis

- **David Bayne, MD** (UCSF P20 Center)



From left to right: David Bayne, MD; Taro Igarashi, MD; Bisiayo Fashemi, doctoral candidate; Maryellen Kelly, DSc, MSN; Marvin Langston, PhD; Laura Pascal, PhD; Wei Chen, PhD; Tze Yin Lim, MS (standing in for Dina Ahrum, PhD)

**ABSTRACT REVIEWS:** This year, all abstracts were reviewed before the meeting by 2-3 unconflicted reviewers with appropriate experience and expertise. Each review was scored using a standardized evaluation form. Presenters received their written reviews at the meeting.

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**Congratulations to ALL poster presenters for excellent poster sessions.** And thank you also to reviewers from within and outside of CAIRIBU for their thoughtful abstract reviews.



## RECURRING WEBEX MEETING REMINDER FOR PIs AND PROJECT LEADERS OF CAIRIBU CENTERS & PROGRAMS

Bi-monthly Webex meetings for **ALL CAIRIBU program and center leaders** are on the 2<sup>nd</sup> Thursdays of the ODD-NUMBERED months at 4:00 PM EASTERN time

Bi-monthly meetings for **U54 O'Brien Center leaders** are on the 2<sup>nd</sup> Thursdays of the EVEN-NUMBERED months, also at 4:00 PM EASTERN

**Best Abstracts:** 14 abstracts were selected from among all those submitted for the 1<sup>st</sup> poster session. They were selected based on the evaluation scores of reviewers who evaluated all abstracts prior to the meeting. This session was moderated by **Dr. Zhou Wang**, PI of the University of Pittsburgh U54 Center.

1. **Courtney Streur, MD** (University of Michigan KUroEpi Program): "Don't ignore what your body is telling you:" optimizing sexual satisfaction for women with spina bifida
2. **Jeremiah Martino, PhD** (Columbia University P20 Center): Altered expression of Crkl splice variants can lead to obstructive uropathy in mice
3. **Hila Milo Rasouly, PhD** (Columbia University U54 Center): Analysis of de-novo coding variants highlights new candidate genes for kidney malformations
4. **James Hokanson, PhD** (Duke University KURE Program): Intravesical prostaglandin E2: bladder irritant or urethral smooth muscle relaxant?
5. **Masato Hoshi, PhD** (Washington University P20 Center): A pipeline to enrich for the transcriptome of bladder sensory neurons
6. **Scott Bauer, MD** (UCSF/Kaiser Permanente KUroEpi Program): Association between lower urinary tract symptoms and frailty in older men
7. **\*\*Hannah Ruetten, doctoral candidate** (University of Wisconsin-Madison U54 Center): Fibroblasts accumulate and produce collagen in dogs prone to prostate related urinary dysfunction
8. **Miguel Verbitsky, PhD** (Columbia University U54 Center): GWAS and CNV analysis demonstrate polygenic determination of vesicoureteral reflux
9. **Diya Binoy Joseph, PhD** (UTSW/University of Wisconsin-Madison U54 Center): Identification of cognate proximal cell types of the mouse and human prostate and their enrichment in human benign prostatic hyperplasia
10. **Renee Vickman, PhD** (NorthShore University HealthSystem P20 Center): Characterization of inflammatory cells in human benign prostatic hyperplasia
11. **\*\*Livianna Myklebust, student** (University of Wisconsin-Madison U54 Center; former summer research program participant): Aging exacerbates LUTD and causes epigenetic modifications altering the sex steroid hormone environment in mice
12. **Meaghan Broman, PhD** (Purdue University/NorthShore University HealthSystem P20 Center): Immune cell interactions in benign prostatic hyperplasia
13. **Teresa Liu, PhD** (University of Wisconsin-Madison U54 Center): Estrogen mediated racial disparity in men with benign prostatic hyperplasia
14. **Mathilde Bonnemaïson, PhD** (UMass Boston/University of Wisconsin-Madison U54 Center): Prostate fibrosis is coupled to a mesenchymal IL-4/IL-13 ;autocrine loop

*\*\* Indicates those awarded "best presentation" awards in this session based on the assessment of a panel of reviewers*

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