



Interactions Core

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

The CAIRIBU Interactions Core has a standing, monthly meeting with dkNET to discuss research resources and opportunities to share with the broader CAIRIBU community.

5/3/2023

Attendance:

Nicole De Nisco – UT Dallas
Michael Neugent – UT Dallas
Kristina Penniston – CAIRIBU Interactions Core
Jennifer Allmaras – CAIRIBU Interactions Core
Mariana Coughlin – CAIRIBU Interactions Core

Short-term goals:

(1) Discuss revitalizing the CAIRIBU Urobiome Research Interest Group

Summary:

- **Kris:** Discussed the CAIRIBU approach to incorporating investigators in the CAIRIBU community (current and prior funded centers, others involved in CAIRIBU initiatives). Reviewed the Urobiome Research Interest Group, what was done before and where it could go now. Reviewed CAIRIBU Connect as a landing page for meeting minutes, the urobiome “mind map”, summaries of NIH grants obtained by people in the URIG (needs updating since last meeting in 2022), links to recordings of various talks). Discussed Aaron Miller P01 multi-center grant idea. Discussed collaboration with UTI Health Alliance patient advocacy group and plans for a patient/researcher dialogue with an opportunity to build stakeholder engagement aspects to grant applications.
- **Nicole:** Mentioned UTIGA (UTI Global Alliance) and Sheryl Justice (?). UTIGA holds a UTI hour (Nicole hosting a talk in July on diagnostics)
- **Kris:** Plans to have CAIRIBU IC promote UTIGA events
- **Nicole:** Mentioned involving patients around metagenomic diagnostics and the problems these tests present
- **Nicole:** Mentioned Society for inflammation and infection and Keymora Scott(?)
- **Kris:** We (CAIRIBU) want to make more connections with these groups. Do we want to identify “buckets” of people and call for another meeting?
- **Michael:** Mentioned the importance of facilitating structured conversation. Mentioned at CAIRIBU Annual Meeting there was a focus group on urobiome and that it was difficult to fit everyone’s questions because they are all coming at it from different perspectives, that is why it is important to incorporate structure into the conversations.
- **Kris:** Yes, CAIRIBU IC can aim these conversations. Stones, infection, everyone has a stake in the game in urobiome. Aaron’s idea to assess urobiome as it relates to each condition. Would you say one goal is to define or articulate a research agenda for urobiome?
- **Nicole:** Yes, we can come up with a list of diseases/organs that include urobiome.
- **Kris:** Also, as a way to “coerce” NIH as what topics they should fund. Mentioned NIH workshops, that kind of went out the window with covid, CAIRIBU could do a version of this. Small working groups an option within each topic?
- **Nicole:** Mentions there will be lots of sub-topics, this is a large umbrella. Multiple aspects of disease, but also aspects of methodologies. Technologies beyond sequencing? “Who” is there and is associated with these diseases? We are behind in figuring out mechanistically what these are doing. Understanding metabolites using metabolomics(?) Struggle with transcriptomics given the nature of urine.
- **Kris:** Asks what is the challenge?
- **Nicole:** Answers urine is hostile environment for RNA. How can we get RNA from urine besides what has been doing. Filled with Ecoli is possible, but otherwise not so much right now. This is a real struggle. If we

figure out how to get that to work, we could figure out what genes microbiota are expressing. Linked with metabolomic data, as well as proteomics, but the databases are not as great given the limited characteristics.

- **Kris:** Discussed Alan Wolfe grant, central clearing house for information and data/resources useful to urobiome research community. What could CAIRIBU Interactions Core step into help with this? Links to resources?
- **Nicole:** Agrees, it is better to come from a third party (CAIRIBU) who is not invested as a competitor.
- **Kris:** Asks is there any organization that does this already?
- **Michael:** Answers there is a large consortia of databanks in cancer (cancer genome atlas). Suggests global urobiome project sponsored by a third party that publishes large consortia papers that identifies gaps in the field.
- **Kris:** Mentions that in benign prostate, leaders are looking at what cancer genome atlas did as well.
- **Michael:** Adds that cancer genome atlas is incredibly well organized.
- **Kris:** Mentions this task requires more than CAIRIBU could do. Could be an additional grant. Another problem is submitting supplemental data materials.
- **Nicole:** Adds that these are usually submitted to NCBI. Adds there is a potential need in other areas of data reporting.
- **Kris:** Ask Nicole to summarize this need in an email and send to CAIRIBU Interactions Core. Not everyone submits their data to NCBI, understood that kind of data as supplements to manuscripts, not true? Is it possible to pull from every journal and put it in one spot? Would this be helpful?
- **Michael:** Intermediate file set database?
- **Nicole:** Yes, like figshare.
- **Kris:** Raw data should all be in sequence read archive. The process data is usually submitted to each journal, difficult to curate especially if the journal is not open access. If no usefulness or utility will not pursue. Who could we get to talk about data access, standardizing how we collect data?
- **Nicole:** Could ask Julie Barthold if she knows someone?
- **Michael:** Suggests dkNET
- **Kris:** Adds that CAIRIBU IC already meets monthly with dkNET. Suggests we could ask at our next meeting with them. The problem is there is so much there. What is available? What could we share with our community?
- **Michael:** Identified the difference between standardizing methodology and standardizing reporting.
- **Kris:** Agrees, standardizing methodology, cool but how do we innovate? Brings the conversation back to U-RIG. We have a relatively large group of people who were ever interested in working on this. We should take the whole list and add these other individuals/groups? Can we pull out people (from UTIGA(?)) just doing urobiome work?
- **Nicole:** Not sure if we could or even should just pull out urobiome researchers.
- **Michael:** Adding others helps with translating mechanisms.
- **Kris:** Put together list, organize meeting, work out structured agenda with conversation and announce a meeting. Suggests June.
- **Nicole:** Suggests July or last week of June.
- **Kris:** Asks for ideal time of day?
- **Nicole:** Lunch meetings are good.
- **Michael:** MVIF research shows 3pm CT is really good in the US. Or 1 pm CT. This group puts on a monthly conference (virtual) next meeting next Wednesday. 9am ET. Open to anybody. Keynote, 3-4 selected talks and discussion afterwards. Run by Levy Watson in US, Nicholas Suggota (?). People from human microbiome project. Very few percentage are urobiome researchers. Maybe 3 people. Includes Lisa Karstens.
- **Kris:** Brought up next steps, schedule a meeting, follow up with this group to discuss a conversation structure, CAIRIBU specific goal is to get people to write grants, even thinking of how we can provide money to get investigators together to discuss a grant.
- **Nicole:** Agrees with big intro meeting with one or two big topics followed by smaller breakout sessions (immediately following(?)) where people can get to know each other better, interest in physical meetups for grant and paper writing purposes.
- **Kris:** Mentioned prior iteration of URIG not wanting CAIRIBU to be named as the organizer but recognized there is always going to be a need for broker. Will move forward with the CAIRIBU U-RIG.

SUMMARY

- History of the U-RIG and plans for revitalizing
 - Materials from prior U-RIG meetings and other resources from U-RIG participants available on CAIRIBU Connect
 - CAIRIBU IC to continue to curate list of interested investigators
 - Discussed related/interested societies including UTIGA and Society of for Inflammation and Infection, MVIF
- How to structure the meeting
 - Requires structured conversation, many different investigators with different interests
 - Possibility for breakout groups that stem from a larger meeting, discussion around diseases or organs that would be interested in the urobiome
- Technologies beyond sequencing in urobiome research
 - Metabolomics (?), transcriptomics, proteomics
 - Data handling and reporting as an issue within this topic
- Data handling in microbiome research
 - Sequencing data vs intermediate file sets (analysis files)
 - Is there room for CAIRIBU to help?
 - Methodology standard vs reporting standards
 - Cancer Genome Atlas as a model?
 - Discussed a challenge regarding open access from journals
 - Potential collaboration with dkNET for future CAIRIBU programming, will follow up in next meeting with dkNET
- Future directions
 - Interdisciplinary, collaborative publications and grants
 - Possibility for CAIRIBU funding for getting groups together

Suggested next steps:

- **Develop conversation structure for first large group U-RIG meeting to be scheduled sometime in the late-June/early-July**