

The Many Flavors of LGBTQ+ Research in Nuclear Chemistry

At the Spring 2024 ACS meeting, Tyler Spano, ORNL scientist and DEIB Committee Co-chair for ACS NUCL division, and Brodie Barth, 4th year graduate student at Notre Dame, organized a symposium titled The Many Flavors of LGBTQ+ Research in Nuclear Chemistry. The session started with a panel of five young investigators who were: Brodie Barth, Elizabeth (Liz) Laudadio (ANL scientist, Walter Massey Fellow), Jordan Roach (ORNL scientist), Nicole (Niki) DiBlasi (LANL scientist), and Rebecca Mueller (graduate student at Colorado State University). During the panel discussion, one panelist stated that **being part of the LGBTQ+ community is what keeps them going**, because even one connection seems more like **they are being seen and belong**. Another described how having friends and coworkers who identified as LGBTQ+ helped them accept and understand themselves; thus, **just having people who were out, supportive, and visible was helpful**.

There were approximately forty people in attendance and an audience member asked **how to talk to your advisor**, who is potentially not accepting. Panelists noted that even a person who is accepting could be difficult to come out to, but perhaps **finding another person in the department or on campus who might help support you** should the outcome be bad. One optimistic panelist suggested that the interaction could potentially go well, and that **people could surprise you**. Another suggested to look for resources online, including the community surrounding the school, which could provide support as talking with people outside of school helped them gain confidence. Another panelist stated that although they did not come out until after graduate school, **university** (undergraduate and graduate schools) **is where you are surrounded by people who are figuring out who they are**, so sometimes you might have to build your own community, if one does not exist, which **may lead to you supporting someone else**.

Many of the panelist were from the national labs, so a question came up about the panelists' **experiences outside of a university setting**. The panelists had some mixed feelings about how **coworkers may perceive the idea of LGBTQ+ as political** and side-step any conversations about diversity, but a few pointed out that the Prism LGBTQ+ Employee Resource Groups are active at a few sites and could provide community for like-minded individuals. One panelist also noted that they had stayed silent for the first 6 months of employment but did eventually start outing themselves and found the **reactions were mostly positive**.

Another question from the audience was about how can allies (mentors and managers) support LGBTQ+ scientists. The panelist suggested:

1. Be there to **listen and validate** what others are saying.
 - a. Try not to interrupt especially if the person gets emotional.
2. **Be willing to use preferred name** as soon as possible and make it a point to **change the names where visible** in the laboratory (without being asked)
3. Use your voice to **speak up when you see something go wrong**.
The panel was very cohesive in their feelings that continuing to be the only voice in the room to defend or educate is exhausting both mentally and physically.
4. **Do not expect the person** who you might know is LGBTQ+ **to speak up and defend or educate** in reference to the comment or question because they may be exhausted and/or uncomfortable sharing with a different group.
5. **Take trainings** like Safe Zone training and get educated.
 - a. **Make your Safe Space training** sticker (or other sign) **visible** outside your office or cubicle for people to see without asking or assuming.
6. **Use "they" language in emails until you know** which pronouns the person uses, do not assume.
7. **Take care and think about** the **language** you use.
8. **Put pronouns in your email signature** and on Zoom/online meetings.
9. **If you see microaggressions**, you should **say something**.
 - a. It may mean more coming from the "boss" than from a peer.
10. If you notice a pattern, you could **ask the LGBTQ+ person**, in a one-on-one, **how they would like you to respond** when things occur.

11. If you are not part of a minority group, potentially **thinking about and working on understanding** how to empathize with someone from a minority group.
12. Remember that LGBTQ+ people, like most workers, **want to** come to the lab/work and **feel respected and valued** while earning a paycheck.

A submitted question asked what the National Laboratory's role is in educating the surrounding community when dealing with state laws that challenge DEIB initiatives. The panel felt that the resulting situation was on a case-by-case basis for individuals to have to ask members of communities where they live to **see them as people and being respected as a person**. Because that can be a lot, the panelist did say that you should decide for yourself and **lean on allies** that can support you. Another mentioned that the national labs already do scientific outreach to the surrounding communities. One panelist noted that **they have been afraid to hold their partner's hand or kiss their partner goodbye in public**, which is something that should be worth speaking up and fighting for. One panelist noted that national labs are federally regulated and, as such, should be places where people can voice safety concerns. The panelists also noted that **national labs are in places where LGBTQ+ people's safety could be concerning**, which **impacted their job search** since this has implications for not only their own safety, but also that of their family and loved ones. The panelists did also note that they had chosen to be part of the panel, which was a decision they made, and that **not everyone in the community should feel required or pressured to also speak out to educate others** on these issues.

After the panel concluded, there was a short intermission before 4 of the panelists presented their own scientific research. Jordan Roach spoke about how Raman spectroscopic signatures of U_3O_8 reveal process history. Rebecca Mueller presented research about the synergistic effects in TRU in HCl when exposed to irradiation conditions, which were not as prevalent with HNO_3 . Liz Laudadio presented findings about molten salt corrosion resistant coatings, but also spoke about mentoring a summer intern who for the first time was able to comfortably speak about their gender identity. Brodie Barth spoke about structure-property relationships of uranyl oxalates with various counterions.

Next, three of the panelists from the established career panel gave presentations. Tyler Spano spoke about optimizing instrument parameters for spectroscopic studies of UO_2F_2 which reduced data collection time by 99% and standardized analysis procedures. Vasileios Anagnostopoulos, Assistant Professor at the University of Central Florida, spoke about the overall research environment at the university and specifically about his own research projects within his group. Dustin Demoin, Director of Radiochemistry at Eckert & Ziegler Isotope Products and Vice-Chair of the ACS NUCL division, spoke about engaging LGBTQ+ researchers and expanded on information that the first panel spoke about. He highlighted that mentors and allies could:

1. Know where to get help/direct people to find answers.
2. **Advocate for change.**
3. You do NOT have to be the ideas person, just **advocate for good ideas.**
4. You do NOT need to be the center of change.
 - a. **Facilitate connections** and follow up on those connections.
5. You do need to **advocate for your researchers/team** in meetings where they do not have a voice.
6. **Be visible and speak up!**
7. **Every person is different**/may want different language.
8. **Respect equally!**
9. **Question** your institution's policies.

He also shared that Employees stay when they are:

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| 1. Paid Well | 4. Promoted | 7. Trusted |
| 2. Mentored | 5. Involved | 8. Empowered |
| 3. Challenged | 6. Appreciated | 9. Valued |

After a brief break, the established career panel started with introductions of Tyler Spano, Dustin Demoin, Vasileios Anagnostopoulos, and Karah Knope (Provost's Distinguished Associate Professor, Georgetown University). Both panels

started with acknowledgements that perhaps the people on the panel might not otherwise be the most visible members of the LGBTQ+ community and wanted to let some other people who might be more visible speak more during the discussion (as an example a bisexual person in a straight-presenting relationship). The panelists echoed that people in midcareer should **speak up in spaces** where they have a voice and felt that **all paths are different and valid**. The panelists spoke about location, local politics, local opinions, national labs being in mostly rural areas and how that **impacted their choices on where to work**. A panelist spoke about how role models and seeing someone in the role you aspire to have can be very meaningful to younger researchers. One panelist noted that nuclear/radiochemistry might be seen as harder, but that most people are willing to train entry-level people because of the lack of people with radiochemistry backgrounds.

A question was posed to the panel of how to deal with people or situations that are bigoted. Panelists spoke about **diverting the conversation** back to science, gauging the connection and interaction you have with this person to determine **if this is a teachable moment** or worth the **emotional investment**, **speaking up** if the person appears open to change, and **being careful** with those you come out to because some people do have **silent biases**.

Another question focused on things that the panelists considered when choosing their career paths. Panelist stated that they wanted to know if they could **be themselves** at that job (unabashedly out). They wanted to know if they could find **people in the community** to connect with, not just at work, if their **family and loved ones would be safe and accepted**, that they **could be a safe space** for others and provide opportunities for those who might not otherwise feel welcome. The panelists all wanted to be **visible and supportive**.

The final question posed was how the panelists saw changes in society and queerness. One panelist said that there has been a big shift in their answers in the last few years because there are very loud voices that are hard to ignore, but that **volume did not mean widespread hate** and that we do appear to be moving forward even when it does not feel that way. One panelist shared that they **look for queer voices of hope and change**, which are abundant, so that they did not get lost in the noise. The panelists did all seem to mostly indicate that they **felt positive about the changes**, while noting that **specific laws and states had made that feeling difficult**.