

## INTRODUCTION

Autumn is well and truly here and with it comes the joy of brisk, colorful days and October grant deadlines. I hope that everyone had a productive summer and has re-acclimated to the routine of a new academic year. The CMIC has had a number of big events take place since the last newsletter, and I'm excited to share a few of our accomplishments.

As I write this, the federal government is getting back to business after the longest shutdown in U.S. history. This is a relief for many of us waiting for grant reviews, prior approval requests, and other research-related activities requiring a robust federal workforce. The folks at NIH, NSF, and other federal agencies are essential for the success of our research programs here in Arkansas and around the country. Nowhere is this more true than in our efforts to study and combat cancer.

So, sit back and relax while I recount the recent successes of some brilliant UAMS students and faculty working to build a better future.

Cheers,



Robert L. Eoff, PhD  
Professor & Vice Chair of  
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CMIC Director



## OUR MISSION

*Cancer affects the health of millions of Americans. Studying molecular mechanisms that endow cells with malignant properties is an essential component of advancing pre-clinical studies and a key part of efforts to improve patient outcomes. The purpose of this NIH COBRE grant is to establish the CMIC at the UAMS. The mission of the CMIC is to study molecular features and functional properties of biomolecules that drive cancer. The unifying theme of research among Center members is the coupling of structural biology and high-resolution imaging with precise, quantitative analysis of biochemical and cellular processes to understand how molecular interactions govern the initiation, progression and treatment of cancer. Our long-term goal is to leverage faculty mentoring, strategic recruitment, and cutting-edge core resources to develop a critical mass of investigators that will support a self-sustaining center in which research advances our knowledge of cancer through precise and comprehensive analyses of molecular events that impact malignant pathogenesis.*

**PLEASE CITE Grant P20 GM152281** if you receive COBRE support or use CMIC core services/instrumentation.

## CENTER NEWS & UPDATES



*Assessing progress and planning strategically: The 2nd Annual CMIC Advisory Committee Meeting was a great success. What an awesome group of folks!*

- CMIC Advisory Committee (AC) Meeting.** The second annual CMIC AC meeting was held on September 18th and 19th at the Winthrop Rockefeller Institute located on beautiful Petit Jean mountain. New pilot project awardees and current COBRE-funded Research Project Leaders shared the podium with CMIC Research Core Directors and staff, presenting updates on research progress and plans for the upcoming year. The AC, including our three external members - Drs. Eichman, Spies, and West - provided some great feedback and guidance for the Center, as we gear up for our third year of NIH support. A big "thank you!" to Veronica Overton and Kahla Robinson for their efforts organizing the meeting and making sure everything went smoothly.
- New funding for UAMS graduate student Reham Sewilam.** Reham Sewilam, a doctoral candidate in the Biochemistry Track, was awarded an F99/K00 fellowship from the National Cancer Institute for her grant entitled "Replication gap suppression promotes drug resistance in hard to treat cancers" (1F99CA305584). This award totaling \$500,776 provides support for both doctoral and postdoctoral training. It is the first time UAMS (or indeed any Arkansas institute) has received this highly competitive award from NIH/NCI. Well done and congratulations Reham!
- Registration is open for NISBRE 2026.** Registration for the 10th National IDEa Symposium for Biomedical Research Excellence (NISBRE) meeting is now open. The meeting will be held June 14-17 at the Bethesda North Marriott Hotel and Conference Center in Rockville, MD. This biannual meeting is a great way to meet other COBRE-funded investigators and learn about all the wonderful initiatives being developed by researchers in IDEa states.

Please register @ <https://www.nisbre2026.com/>

## CENTER NEWS & UPDATES (CONT.)

**CMIC/INBRE CryoSPARC Live workshop.** The CMIC COBRE and AR INBRE hosted a hands-on workshop with the program CryoSPARC Live, which is a major program for initial processing and analysis of cryo-EM data. Attendees brought a laptop and worked through all the computational steps of cryo-EM structure determination using the computational resources of the AR INBRE and CMIC COBRE and a cryo-EM dataset collected at PNCC. The workshop was designed to benefit all attendees a diverse range of cryo-EM skill levels and backgrounds. Novice attendees gained insight in the start-to-finish process of cryo-EM structure determination, potentially sparking an interest to use cryo-EM in their own research projects and to collaborate with the CMIC Structural Biology core. Seasoned attendees gained practical experience in using the same cryo-EM software that they would likely employ after installation of a Glacios cryo-EM at UAMS.



## RECENT PUBLICATIONS

*(Center publications from May 2025–November 2025)*

Acharya B, Hanafi M, Enemark L, Armstrong D, Saha D, **Miah S**, Frett B (2025) "Discovery of novel 1H-pyrazolo[3,4-d]pyrimidine derivatives as BRK/PTK6 inhibitors" *European Journal of Medicinal Chemistry*, 300: 118145 (PMCID: PMC12574688).

*Center members are listed in bold*

## THE STRUCTURE OF DETERMINATION

Temperatures may be falling, but basketball season is just heating up. It's a big deal for a lot of folks, including several in my household. To celebrate a new season and to honor the relative ancient-ness of those of us who grew up in the 80s, my daughter and I recently sat down and watched Game 4 of the 1984 NBA Championship series between the Boston Celtics and the Los Angeles Lakers. Watching this game, a few things stood out to me: the dearth of any meaningful 3-point game, Larry Bird's seeming defiance of the Heisenberg uncertainty principle from the free throw line, Pat Riley's awesome hair, the preponderance of grown men wearing lululemon shorts, and Michael Leon Carr.

M.L. Carr is not a player I remember from my youth, but watching this old pixelated recording of the contest between Boston and L.A., he absolutely got my attention. In a game where the commentary largely centered on the big names - Magic Johnson, Larry Bird, Kareem - I kept noticing this guy on the Boston bench, waving his towel and flashing a big smile. Why was that? Guys on the bench cheer on their teammates all the time. Why did M.L. Carr grab my attention when Magic was playing Bird, Kareem was throwing elbows, and James Worthy was schooling everyone?

Even before his famous moment in that decisive game, I was grinning because of the way M.L. Carr encouraged his teammates. There was no posturing, no bravado or braggadocio (at least from a neutral's perspective :). M.L. Carr's smiling exuberance and infectious enthusiasm somehow felt pure. There was only the game and his team. I love that mentality.

Ultimately, M.L. Carr's contribution to the 1984 Boston Celtics was loved by Boston fans and (ahem) *less appreciated* by everyone else. In reading about M.L. Carr's career, there is a good bit more to take in and consider than what happened on that one night in L.A., but for me, looking back at that moment through an unbiased lens of 40+ years, M.L. Carr embodied a good-hearted selflessness that helped lift the entire Boston team to greatness.

