

RII Track-4: NSF: Elucidating heterogeneous single chain conformation and dynamics in thin films through optical imaging

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Faculty Host/Mentor:

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Graduate student:

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Scientific goal: Developing a comprehensive understanding of single-molecule behaviors of polymer chains through real-time, real-space fluorescence imaging

Broader impacts: Enhancing advanced imaging infrastructures and capabilities in the state of MS and surrounding regions, broadly benefiting research programs across chemistry, life sciences, physics, and materials science.



OIA-2132144

Leveraging EPSCoR Track 4 Funding

- For graduate student: 1) Acquiring cutting-edge **research skills**; 2) Exposed to **interdisciplinary collaboration** and learning environment ; 3) Working and networking with peers with **diverse background**
- For PI: 1) Establishing a robust **research infrastructure** for the group; 2) Learning group **management skills** through daily experiences; 3) Developing **long-term collaborative relationships** with leading scientists in the fields and beyond
- For USM: 1) Enhancing various **research and recruitment activities**; 2) Assisting in the management and **training of users** on instruments; 3) Facilitating **collaborative efforts** across different disciplines
- For Mississippi: Supporting various research programs within MS INBRE (NIH program) and CEMOS (EPSCoR Track 1) networks (over 200 users from 30 universities/colleges)



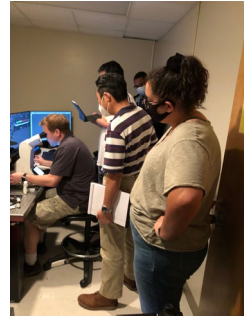
As a result....

Direct scholar outputs: Published four papers and several more to be submitted

Broader impacts: Southern Soft Matter Symposium, over 80 attendees
(hands-on training sessions)



Poster Session



Workshop



Career Panel

Secured additional funding support for the PI and state: NSF CAREER, I-Corps,
EPSCoR Track 2...



OIA-2316351

CMMI-2239408

TI-2201638