

Mentoring of the Postdoctoral Fellow

The Post-doctoral Fellow (PDF) will be provided the following mentorship activities:

- In addition to frequent one-on-one meetings with the PIs, the PDF will participate in weekly laboratory group meetings. The PDF will be encouraged to initiate collaborations with other groups within the university as well as participating universities, and collaborative laboratories. The PDF will be encouraged to attend the departmental seminars and colloquia. The PDF will be encouraged to present teaching and research ideas and results associated with this project at departmental seminars, undergraduate colleges, and high schools.
- The PDF will have the opportunity to participate in excellent programs created for the mentoring of junior faculty in research and teaching, including a graduate level proposal writing course.
- The PDF will be involved in the preparation of research proposals and budgeting efforts in collaboration with PIs. They will be taught to write independent proposals to funding agencies like NSF, NIH, and DOE for transitioning into the next stage of his/her professional life.
- The PDF will be encouraged to write proposals for beam time at the national labs, Brookhaven or Los Alamos, and then working at those sites will be another great learning opportunity.
- One of the PIs (Dr. Gryczynski) is employed by TCU but maintains close ties with the UNT Health Science Center which is located in Fort Worth, about 5 minutes away from TCU campus. The medical school generously granted Dr. Gryczynski unrestricted access to his former laboratory and all scientific equipment assembled. In exchange, he has agreed to continue working with graduate students as an advisor and teach specialized courses as an adjunct professor. The PDF will have a unique opportunity to work in a completely different environment, a medical school solely focused on graduate education. Most likely, the post-doc training will include an annual workshop on applications of fluorescent techniques organized by UNT HSC for the industry employees.
- The PIs will ensure the PDF gains experience in scientific manuscript preparation and submission, and supervising graduate and undergraduate theses.
- The PIs offer several experimental courses to undergraduate and graduate students. The PDF will be able to teach these courses and mentor the students. They will be interfacing between the PIs and the graduate and undergraduate students for the smooth functioning of the project as well as fostering their research and teaching career.
- The Ion Beam group at the UNT is the organizer of the Biennial International Conference on Application of Accelerators in Industry and Research (CAARI). The PDF will be encouraged to make presentations at this conference as well as arranging a session on the topics related to “Nano-materials for Medical application”.
- The PIs offer several outreach activities throughout the year including the annual Physics Olympiad. The PDF will be encouraged to participate in those activities and explain to the school children, teachers, and their parents the importance of the content of this proposal for safeguarding our society.
- The success of this mentoring plan will be assessed by monitoring the progress of the PDF through interviews of the postdoctoral fellow to assess satisfaction with the mentoring program, and tracking of the postdoctoral fellow's progress toward his/her career goals after finishing the fellowship period.
- TCU conducts an annual RCR (Responsible Conduct of Research) training workshop for postdocs and graduate students. Participants are required to take the online CITI (Collaborative Institutional Training Initiative) course and then to attend this in-person workshop with faculty leaders and interactive sessions. TCU's policy about RCR is available online (<http://www.research.tcu.edu/rcr/>).

The extensive experience of the PI and co-PI as post-doctoral fellows themselves and their experience supervising PDFs will provide a close mentoring relationship.