

## **NON-TRADITIONAL INTERNSHIPS FOR POSTDOCTORAL FELLOWS**

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In response to the changing job prospect landscape for graduate students and postdoctoral fellows, the Moffitt Cancer Center division of Education and Training has conceptualized and established a number of different opportunities intended to supplement the traditional training environment.

A robust internship program was established within the Office of Innovation & Industry Alliances within the last several years. This flexible internship allows graduate students and postdocs to gain exposure and experience in careers related to the protection and licensing of intellectual property. The trainee completes four-month rotations within each of the three units of the Innovation Office - patenting, licensing, and sponsored research. During this time, the intern is responsible for research on patentability, market analysis, creation of marketing materials, and identifying commercial opportunities for real-world technology produced by Moffitt investigators. Innovation Office interns are fully immersed within the office by participating in office committees, meetings with faculty and current and potential commercialization partners, and participating in the planning and execution of the annual Business of Biotech conference. This conference is a unique opportunity to interact with business development and other important leaders within the biotech and pharma sectors and learn how to develop and foster partnerships between industry and academia. Through the myriad opportunities provided by this internship, interns have been very successful in transitioning from academia into varying private sector full-time positions.

In addition to internships in scientific operations of the Innovation Office, there are opportunities for those with a technical background to learn the business aspect of a technology transfer office. This is a reflection of the flexibility interns have to tailor an internship experience to their interests and career goals. The time commitment requirements are also flexible with hours ranging from two to thirty-five hours per week according to negotiations between the intern's primary scientific advisor and the Innovation Office. Based on the negotiated effort, the Innovation Office will pay a portion of the intern's salary, up to 10% effort. The funds for this are provided by Moffitt and are included in the Innovation Office's annual budget. The Innovation Office maintains an Education & Training committee that oversees the intern program and provides periodic reports on the successes of current and former interns as well as actively engaging in process improvement to better cater to the current needs of the target population of trainees.

The division of Education and Training and the Office of Postdoctoral Affairs at Moffitt are also actively working to establish a number of other internship opportunities to broaden training needed for postdocs who seek to transition away from the tenured faculty career path. Two internships currently under development include opportunities

in the Cell Therapies and Molecular Therapeutics Core Facilities at Moffitt. These provide unique experiences between four and eight hours per week over the course of up to nine months to gain skills that will enable them to seamlessly transition into new career paths including those in pharma and within academic centers. We intend to constantly seek and evaluate additional opportunities for their potential as internships.

Finally, Moffitt recognizes, as have other research institutions, the importance of considering non-government fiscal sources, such as private donors, to fund some of these internship initiatives in the long term. This is particularly important when considering development of internships related to scientific policy. One major challenge that we have faced at Moffitt, where there is an active science policy community, is establishing a Government Relations internship where graduate students and postdocs would work on particular legislative initiatives and interact with the Federal and Florida legislatures to promote scientific policy on behalf of Moffitt. This poses a conflict of interest on behalf of the trainee as most trainees at Moffitt are funded by NIH-derived dollars and are, thereby, prohibited to lobby the government on scientific matters, thus making a formal internship currently impossible. However, science policy remains an attractive and popular career choice for many of our trainees. To address this, we are reorganizing a trainee led Government Relations Task Force (GRTF) to better focus on current policy issues, give more varied opportunities to more trainees, provide experience in the policy space, and forge important connections for a future career in science policy. While GRTF participation is considered extracurricular activity and members are not compensated for their activities, participation provides opportunities for learning legislative processes and effective ways of communicating the importance of research to legislatures for organizing science policy.

Altogether, broadening graduate and postdoctoral training to include non-traditional and non-academic internships remains a critical, and relatively underdeveloped, pillar of education. The convergence of three factors (increasing numbers of graduating PhD students, limited faculty positions, and a challenging funding environment) has created a population of trainees evaluating other career tracks. The opportunities that have been created at Moffitt serve as bridges to careers outside of research, allow early career scientists to view academic work from different perspectives while enhancing their skillset and employability, and partially alleviate the pressure created by the academic bottleneck.