**Budget Justification**

[*see NSF detailed instructions*](https://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_2.jsp) *from the* NSF’s**Proposal & Award Policies & Procedures Guide (PAPPG)**

**A. Senior Personnel**
Emily Martin, Ph.D., Principal Investigator will be engaged in the administration and oversight of all aspects of the proposed experiments and requests 0.5 month summer salary. Rutgers Professors, Associate Professors, and Assistant Professors, as research faculty, are fully supported by the University for the academic year with no specific commitment of time to any individual program.

**B. Other Personnel**

 TBN, postdoctoral researcher will provide effort for 24 calendar months. Funds are requested for two years of support for a postdoctoral researcher at $42,000 per year in years one and two. The postdoctoral researcher will focus on the development of [specific objective #1]. Through these research activities, he/she will work closely with, mentor, and train Graduate Student Angelica da Silva (see below). Additionally, the postdoctoral researcher will participate in the activities outlined in the postdoctoral research mentoring plan.

 Graduate Students: Two years of support at 10 months per year are requested for Graduate Student Nicholas Adams, who will conclude his Ph.D. studies with the development of (specific objective #2).

 Graduate Student Angelica da Silva, presently a 1st year Ph.D. student, will work for two years at 10 months per year in Years 1 and 2. By year three, she will be adequately trained to independently pursue the proposed synthesis of (specific objective #1), and will be fully grant-supported to facilitate this endeavor in her third year.

 Undergraduate researcher Alex Stein will continue his research efforts in the PI’s group, participating in research during the summer of year one, alongside a senior researcher. Stein will receive an hourly rate of $15 for 300 hours over 10 weeks (total $4,500).

 TBN Undergraduate student researchers will be incorporated, as needed, on research projects during the summers of years two and three. (2 undergraduate researchers over 2 summers, 300 hours for each summer, total $18,000.

**C. Fringe**
Fringe benefits are calculated at 7.65% for faculty summer compensation, at 60.36% for the postdoctoral researcher, 24.51% for graduate students, and at 0% for student hourly wages.

**D. Equipment** (none requested)

**E. Travel**

 We request funding for one member of the lab to travel to a conference in year two for the American Chemical Society, March 23 – 27, 2025 in San Diego, CA. Funding includes $950 for round trip travel to San Diego; ground travel $75; lodging for three nights at $270 per night; and $165 for evening meals (not provided at the conference venue). Total request is $2,000.

**F. Participant Support Costs** (none requested)

**G. Other Direct Costs**

1. Research supplies, $2,000 in Years 1 and 2, and $1,000 in Year 3. Consumables to be covered include, but are not limited to: solvents, silica gel, TLC plates, chemical reagents, inert gas and cryogen tank rentals, and lab supplies (gloves, pipettes, disposable needles and syringes, disposable vials, glassware).
2. Publication Costs. We request $400 in Year 2 and $800 in Year 3.
3. Consultant Services. Terrell Simon, a Professor at NJIT, will provide consulting on innovative techniques related to synthesis in specific objective #1 for 6 hours each in Years 1 and 2 at $250 per hour (total $3,000)
4. Computer Services: n/a
5. Subawards: n/a
6. Other: n/a

**Tuition:** Tuition to the Graduate School for students as applicable requested in each year. Graduate Student Nicholas Adams will receive 2 years of tuition support in Year 1 and 2; Graduate Student Angelica da Silva will receive tuition support in all 3 years at $24,000 per year.

**Indirect costs:** Indirect costs are calculated in accordance with Rutgers University’s federally negotiated indirect cost rate agreement, which is 57% of modified total direct costs (MTDC excludes equipment, tuition, & participant support costs) for each year.