



Biophotonics Center

The Vanderbilt Biophotonics Center at Vanderbilt University in Nashville TN is hosting our 3rd Vanderbilt Biophotonics Summer Undergraduate Research Program. The objectives of the program are to engage undergraduate students in hands-on training and cutting-edge research in the application of light and light-based technologies for clinical translational research and fundamental discovery. Students will receive a one-week crash course in Biophotonics from leading experts in the field followed by a dedicated research project with clinical and research mentors in biomedical engineering and medicine. Research areas include technologies for low resource settings, intra-operative surgical guidance, cancer diagnosis, Raman spectroscopy for clinical translation, Optical Coherence Tomography (OCT), optical biosensing, computational simulations/modeling, infrared neural modulation, optical properties measurement, optical device instrumentation, microscopy (linear and non-linear), optical polarimetry, and thermographic imaging. More information about potential research projects may be found at www.vanderbilt.edu/vbc

The deadline for applications is 02/14/2022 – [APPLY NOW.](#)

2019 participants + Vanderbilt undergrads



2021 participants (missing one)



Program Details

- The program will be held at the Vanderbilt Biophotonics Center, Vanderbilt University, Nashville, TN
- The internship will run from **May 31, 2022 to August 5, 2022**
 - Students participating in this program are required to work full-time (40 hours per week) during the 10-week program period. As a part of the program students will submit weekly research updates, participate in an exit interview for feedback, return their lab notebook to their mentor, and participate in the end of the summer research presentation
- Students will receive a stipend of \$6000 for the duration of the program
- The application deadline is February 14, 2022 at 5:00pm CT. You will be notified about your acceptance into the program by March 11, 2022.

Program Highlights

- Oral presentations at VBC and the opportunity to submit an abstract to BMES National Meeting (October 2022) or Photonics West (January 2023)
- One-week crash course in Biophotonics from leading experts in the field
- Weekly professional development workshops
- Weekly seminars, research meetings, and student run journal club
- One-on-one mentoring meetings with research experts
- Cutting edge research with program mentors
- Clinical interactions with surgeons and physicians
- Observational visits to the operating room and patient clinics depending on the research project
- Field trips and social events
- Opportunity to explore Nashville and surrounding area

Eligibility Requirements

- Full-time undergraduate student
- U.S. citizen or permanent resident
- Full-time availability during the program
- Foreign nationals will be considered (please contact program coordinator)
- Full-time availability during the program
- Students who are rising juniors/seniors in Summer 2022 majoring in biomedical engineering, electrical engineering, physics, chemistry, life sciences, or other related field will be preferred although all students are encouraged to apply
- Women, underrepresented minorities, and military veterans are especially encouraged to apply
- Participants must be 18 years of age by the start date of the program and completed at least 1 year of college coursework

Application Information

- The application (<https://tinyurl.com/VBC-SummerProgram-2022>) includes:
 - personal and academic information,
 - a brief personal statement describing your motivation for applying to this program,
 - a copy of your unofficial school transcript (as a pdf), and
 - 2 recommendation letters submitted to a Box folder, please also include their email addresses.
 - All components of the application must be submitted before the deadline to be considered complete. Only complete applications will be reviewed