



# THE YOUTH IS OUR FUTURE AND THE FUTURE IS HERE

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## PURPOSE AND BACKGROUND

"Education is the most powerful tool that can be used to change the world."

The Global Thrombosis Forum (GTF, [www.gtfonline.net](http://www.gtfonline.net)) was established in 2012 to recognize and nurture the research talents of high school students early in their careers. GTF works to train young high school scholars on topics such as research and the facts of thrombosis. GTF began when a young high school student suffered from a massive bilateral pulmonary embolism. In September 2011, during the annual conference of the North American Thrombosis Forum (NATF), the idea was introduced as an initiative to raise awareness about thrombosis and its associated risks in the community. GTF strives to work in collaboration with and carry out the missions of the NATF. GTF firmly believes that high school students, under proper mentorship, can perform research and strives to enhance the public's overall understanding of thrombosis while also working with young scholars to help them develop various skills.

## METHODS

- The following skills are promoted in the high school scholars:
  - Resume writing
  - Interviewing patients
  - Interning/conducting research through internships at BWH, Loyola, PACO, PERT, and São Paulo.

## ACTIVITIES FOR THE GTF SCHOLARS

- GTF scholars meet experts through various activities, including
  - Breakfast meetings
  - Symposium visits
  - Participation in Grand Rounds. Students in GTF may have the opportunity to get their research published.
  - Conducting research, presenting, and publishing research at conferences.
  - Many GTF scholars have successfully published their research in scientific meetings, including the AC Forum, ASH, ASPET, AV Forum, ISTH, and PERT.

## GENDER DISTRIBUTION

- Although GTF has a strict non-discrimination policy for gender, nationality, race, and country of origin, we have often found that females often lead in most of the categories
- Enrollment in GTF M/F: 62 vs 38
- Scholarships awarded: M/F: 64 vs 36
- Authorships for abstracts M/F: 60 vs 40
- Authorships for publications: M/F: 60 vs 40
- Attendance at scientific meetings: M/F: 60 vs 40

## RESULTS

Over the past 12 years, over 90 scholars have been recruited for internships at Loyola, PERT, São Paulo, and with local physicians.

The research was presented at multiple scientific organizations (ACForum, ASH, AVF, EVF, IUA, IVC, THSNA) and published in peer-reviewed journal articles.

These conferences provide a professional environment where students present posters or presentations in front of scientists, researchers, and international experts. Students undergo a rigorous preparation process leading up to the event, including multiple rounds of review and feedback from mentors to refine their research and presentation skills. Letters of recommendation from GTF mentors have supported student admissions to prestigious universities, including Cornell, Duke, Harvard, Johns Hopkins, the University of Michigan, and the University of North Carolina (Figure 1). The admissions in different categories of majors are shown in Figure 2I.

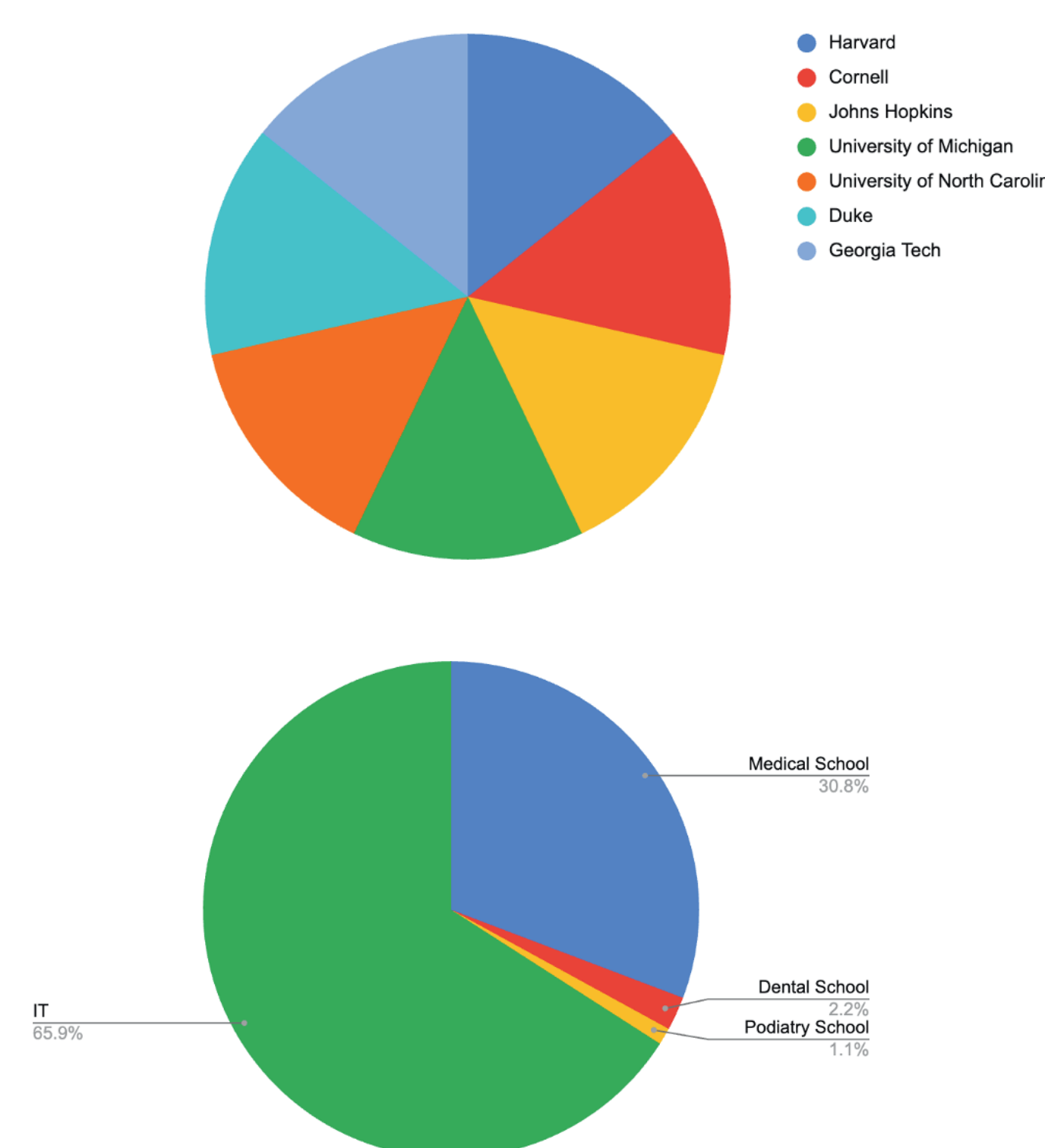


Figure 1: Undergraduate GTF student admissions in Universities.

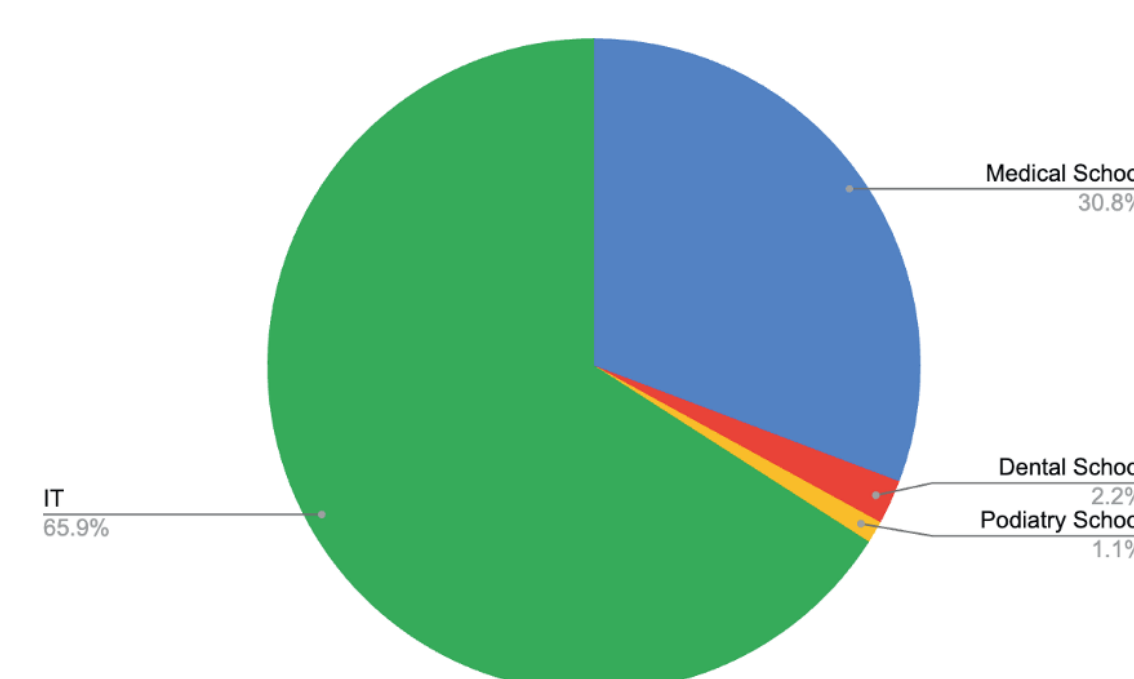


Figure 2: GTF scholar admissions.

GTF also organizes multiple annual events to maximize student exposure to the research world:

- High School Scholars Day at Loyola
- Symposia hosted by Loyola University
- Symposia hosted by PACO
- Symposia hosted by GTF
- Student-led research presentations at national meetings.
- These efforts highlight the tangible impact of the GTF program and the notable achievements of its scholars.

GTF has created five levels for the GTF Scholars (Figure 3):

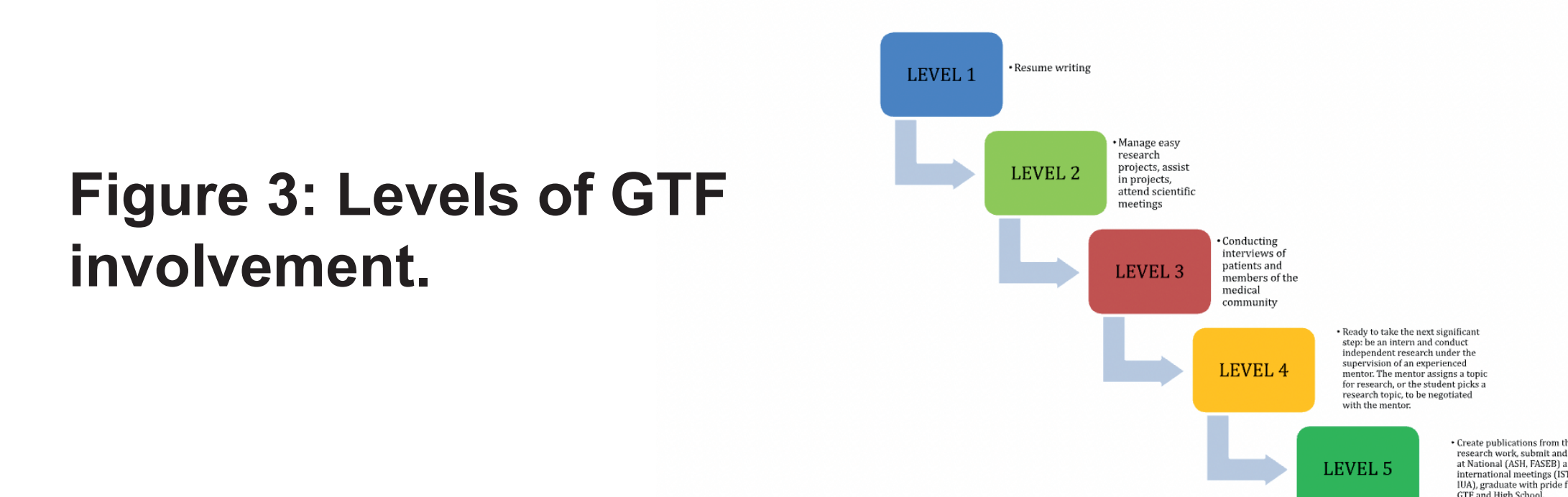


Figure 3: Levels of GTF involvement.

## TYPICAL LIFE OF A GTF INTERN

The typical life of an intern consists of working 8-12 hours a day under the guidance of a qualified mentor. The scholar must present and take questions on their research presentations to the faculty each week. In honor of the GTF Scholars, Loyola University has initiated a prestigious one-day event every year, called the High School Scholars Day, where the research is presented to the Faculty. The idea of research internships originated at Loyola University under the guidance of Jawed Fareed, PhD, Professor of Pathology and Pharmacology and Head of Thrombosis and Hemostasis research at Loyola University. GTF provides internships to hardworking scholars that would benefit them personally.

## CONCLUSIONS

GTF aims to bring out the best in high school scholars. We have coached our scholars in scientific research, created internships, and provided them with multiple opportunities to present their research at domestic and international scientific meetings. Females have made up the majority in almost all projects at GTF. High school scholars possess immense skills that can be effectively developed through mentoring in research, presentations at scientific conferences, writing scientific publications, and preparing for college admissions in this highly competitive world.