

DANIEL S. COLLINS

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118 Glen Ave
Newton, MA 02459

EDUCATION

Duke University, Durham, NC

Class of 2024

Candidate for B.S. in Biophysics

Minors: *Marine Biology; Visual and Media Studies*

Newton South High School, Newton, MA

Class of 2020

Weighted GPA: 4.71

Unweighted GPA: 3.90

RESEARCH EXPERIENCE

Broad Institute of MIT and Harvard

Summer 2017, 2018, 2019

Research Intern

Conducted a synthetic biology project which demonstrated that the expression of tardigrade (waterbear) proteins within bacterial probiotic models can be used to enhance the ability of probiotics to survive freeze-drying.

ACADEMIC HONORS AND AWARDS

People's Choice Award, 2019 Sigma Xi Student Research Showcase.

Citizen Scientist Award Winner – translational science award: Senior, NSHS.

Leonard Adelman Award Winner – top scholar-athlete award: Senior, NSHS.

Senior Cup finalist – Newton South's highest student award: Senior, NSHS.

Invited participant, MIAA/MSAA Inclusion Summit: Sophomore, NSHS.

High honor roll: Freshman, Sophomore, Junior, Senior, NSHS.

CONFERENCE POSTERS AND PRESENTATIONS

"Harnessing tardigrade-specific intrinsically disordered proteins to enhance the robustness of living medicines," Synthetic Biology: Engineering, Evolution & Design (SEED) Conference, 2019.

"Harnessing tardigrade proteins to enhance the robustness of living medicines," Sigma Xi Student Research Showcase, 2019.

“Harnessing tardigrade-specific intrinsically disordered proteins to enhance the robustness of living medicines,” MIT Synthetic Biology Center Symposium, 2019.

PATENTS AND PATENT APPLICATIONS

Collins DS et al. “Compositions and methods for increasing the viability of freeze-dried probiotics.” U.S. Provisional Patent Application No. 62/794,916.

EXTRACURRICULAR ACTIVITIES

Boys Varsity Indoor Track, Newton South High School

Co-captain
Varsity Letter winner
Three-time Dual County League All-Star
Two-time Dual County League Champion: high jump
Dual County League Record Holder: high jump
NSHS Record Holder: high jump
Two-time qualifier, NB Nationals
New England Championships (3rd, 2019)
All-State Championships (3rd, 2019)
Division 1 Championships (2nd, 2019; 3rd, 2018)
Award of Excellence

Boys Varsity Outdoor Track, Newton South High School

Co-captain
Varsity Letter winner
Two-time Dual County League All-Star
Two-time Dual County League Champion: high jump
Dual County League Record Holder: high jump
NSHS Record Holder: high jump
Three-time qualifier, NB Nationals (12th, 2019)
Qualifier, New England Championships
All-State Championships (2nd, 2019)
Division 1 Championships (2nd, 2019; 3rd, 2018)

Computer Animation, Newton South High School

Created photo-realistic images and animations on animation software called c40;
mentor and instructor for the Computer Animation class offered at NSHS.

Humanities Collective, Newton South High School

Organized and participated in intellectual and cultural outings, including slam poetry
and visits to art museums.

Leader, St. Ignatius Parish Confirmation Retreat

Organized and led all activities for high school students making their confirmation in the parish.

Leader, St. Ignatius Youth Group

Organized, led and conducted service activities in the community.

High Jump Coach, Newton, MA

Coached track athletes in the high jump at NSHS (Boys & Girls Varsity/JV teams) and two local middle schools; coached a MA Middle School state champion.

Boys Junior Varsity Cross Country, Newton South High School

Competed as a freshman.

WORK EXPERIENCE

Beaver Summer Programs
Counselor in Training (CIT)

Summer 2016