Regeneron Science Talent Search 2021 Application Questions

This document previews the application questions for the Regeneron STS online application. ALL entries must be submitted through the online application system; hard copies will not be accepted. The application deadline is Thursday, November 12, 2020 at 8pm Eastern Time. The online application can be accessed at https://sciencetalentsearch.smapply.org. ***Please be aware this document contains many branching questions that are hidden within the application.*** Some of these questions will only appear based on the entrant's response to a previous question. The application appears here in its longest state.

Application Instructions:

Welcome! The Society for Science & the Public has proudly produced the Science Talent Search for the past 79 years. We look forward to receiving your application to the nation's oldest and most prestigious science and math competition for high school seniors. Review the deadlines and read the instructions below. You will gain access to the application on the next screen, and can refer to these instructions by scrolling over the "i" on the right above the Task List or by clicking "Programs" in the upper right hand corner.

1. **Review the Regeneron STS Rules and Entry Instructions document** and the Research Report Guidelines before you start. You must submit your answers within the Tasks below.
2. **Mark your calendar** with these dates:
   o Technical Support Deadline: Wednesday, **November 11, 2020 at 8:00 p.m. Eastern Time**
   o Application Deadline: Thursday, **November 12, 2020 at 8:00 p.m. Eastern time**
3. **Complete Tasks 1-11. Be sure to read the "Task Instructions" for each task.**
   o You don't need to complete the application in one sitting; you may save your work and continue to edit up until the deadline. If you try to save an incomplete page containing required questions, you will receive a warning but the content will save.
   o Once you finish a task, mark it "complete" by pressing the green button at the bottom of the screen. You will see a green check mark next to the task.
   o To edit a task, open the task number then click on the three dots on the right side of the form. Click "edit." Once you are done editing, be sure to hit "mark to complete" to save your work.
   o All components of the application must be submitted through this online system. We recommend that you save your essays in a Word or other document to eliminate the risk of losing your work if there is a disruption in internet service.
   o You are required to read and sign the Ethics Statement before submitting your application. You can view this any time, but cannot sign it until you have completed all other required tasks.
4. **Request recommendations** early in the application process through the online system. The High School Report includes a request for your transcript.
5. **Submit!** You must click the "submit" button at the bottom of the task list to submit your application. We recommend downloading your full application for your records. You will not have access to download your application after November 12.

Questions? Check out the Application FAQs page or email us at sts@societyforscience.org. And, refer to your "Activity Feed" next to the Task List to monitor your progress and locate emails from us (they are all stored here in case you miss them in your inbox).

Task 1: Basic Information

ELIGIBILITY

Select the option that best describes you:

- I am a high school senior living in the United States with an expected graduation date of Winter 2020 or Spring 2021 (eligible to apply)
- I am a high school senior living abroad but I meet the eligibility requirements (eligible to apply) I am likely graduating this academic year, but it is unclear due to COVID-19
  - *Please let us know why you are uncertain if you will graduate this academic year. (maximum 200 words) We understand that there is much uncertainty around high school grades and graduation requirements due to COVID-19. Our team will follow up to request final determination of your graduation year by December 15, and then will process your application accordingly.*
- I am a high school teacher or mentor Other

ABOUT YOU

Your Legal Name
- First Name on Your Transcript
- Middle Name on Your Transcript (optional)
- Last Name on Your Transcript
- Alternate/Nickname for Your Biography What do you like to be called?

Gender (optional)
- Female
- Male
- Non-Binary
- Transgender
- Other

Preferred Gender Pronouns
- he/him/his
- she/her/hers
- they/them/theirs
- other

Parent/Guardian #1
First Name
Last Name
Relationship to You

(Parent/Guardian information is optional for #2-4)

SCHOOL INFORMATION

Where is your high school located?
- I attend school in the United States or in a U.S. territory
- I attend high school abroad

High School Name

High School Address

Type of High School (select all that apply):

- Public
- Private
- Magnet
- Charter
- Dual Enrollment

Are you graduating from high school early?

Are you completing your high school coursework in less than 4 years and/or graduating a year or semester early and/or choosing to forgo graduating from high school? We ask this question to verify your eligibility for Regeneron STS. If yes, please explain the circumstances and why you believe you are still eligible for Regeneron STS.

Current Coursework

In what classes are you currently enrolled? Enter up to eight (three are required). Grades are not needed.

Tasks 2a-c: Recommendation Requests

Applicants must request the following recommendations, all to be submitted by the designated adults by the application deadline (November 12, 2020 at 8:00 pm ET) through the online system. Recommendations are confidential and will not be shared with student entrants.

1. Educator Recommendation (up to 2)
   a. Educator Recommendation should be completed online by the person with the most knowledge of the student in an academic setting and of his or her scientific potential. Students may choose a non-science teacher, and if they choose to submit two of this type of recommendation, may select a coach or other type of advisor as the second Educator Recommender.
2. Project Recommendation (up to 2)
   a. Project Recommendation should be completed online by the person closest to the student's research. The head of a lab should only complete this if he or she worked with the student closely.
   b. Project Recommenders might be asked to provide information and documentation about projects involving humans and vertebrate animals.
3. High School Report
   a. Talk to or email your guidance counselor and let them know that you will be emailing them with instructions from our online system regading your high school transcript. The sender name should be completed online by a counselor or administrator. Official high school transcripts must be uploaded in this section. Counselors must upload transcripts on the high school report as PDFs. Mailed, hard copies are not accepted.
   b. NEW: Counselors are now asked to complete a series of school profile questions just once for all of their entrants, rather than for each entrant. We hope this will save time. Counselors only need to do this once, then upload each transcript.
   c. NEW: Students who would like to submit a second transcript from a college course may now submit these on their own via the online application.

Students are encouraged to request recommendations early in the application process through the online system. Recommenders receive an email invitation and are prompted to create a password to complete and submit forms online. Students are responsible for the timely receipt of transcripts and recommendations.

To preview the Recommendation Forms, visit Appendices 4–6 of the Rules and Entry Instructions.

Task 3: Rules Wizard/Form Uploads

NOTE: Task 3 contains a series of simple yes/no questions that result in a longer set of questions based on student response and the type of research they conduct. The question set appears here in its longest form; we recommend viewing in the application for a shorter/simpler experience.

Research that involves humans, vertebrate animals, or human or vertebrate animal tissue and cell lines, PHBAs and hazardous materials must adhere to Regeneron STS rules. Researchers must obtain special permissions and approvals to work with these subjects. This survey will guide all entrants to upload paperwork dependent on the topic of research. If this applies to your work, please make sure the IRB and IACUC approval forms, risk assessments and wildlife permits are properly signed, that any surveys and informed consent documents uploaded are blank, and any other paperwork is properly completed. Exempt human and animal tissue studies will still need to upload documentation about the source of the tissue.

Read the Regeneron Science Talent Search Rules and Entry Instructions 2021 document.
This is a required step in order for you to understand the eligibility requirements, rules regarding human and animal research and more.The rules document contains a helpful checklist for all applicants. We strongly recommend that you review it.
- I verify that I have read the Rules and Entry Instructions 2021 document

HUMAN RESEARCH

1. Does your project involve the use of human participants, including surveys (written, in-person or online), and/or did you test a product of your project (your invention, prototype or computer application) using human participants other than yourself?
- Yes (go to 1a)
- No (go to 2)

1a. Did you conduct a human participant study as described above which is exempt from pre-approval by an Institutional Review Board (IRB)?
> *Studies that are exempt from IRB approval include:*
>
> o *Studies in which the data are preexisting and publicly available.*
> o *Behavioral observations of unrestricted public settings in which*
>   ▪ *the researcher has no interaction with the individuals being observed and*
>   ▪ *the researcher does not manipulate the environment and*
>   ▪ *the researcher does not record any personally identifiable data.*
> o *Research in which the student receives preexisting or retrospective data in a de-identified/anonymous format.*
>
> *The student mentor must certify in the online recommendation form that the data or tissue samples were not collected for the purpose of the student's project, have been appropriately de-identified before being given to the student and are in compliance with all HIPAA laws.*

- Yes, my study was exempt from IRB approval (1b will appear)
- No, the examples above do not describe my study. It is not exempt (1c & 1d will appear)
- Part of my study is exempt, but part is not exempt from IRB approval (1b, 1c & 1d will appear)

1b. Add a detailed explanation of how your exempt data was obtained. (maximum 200 words)

1c. Projects involving human participants must be approved by Institutional Review Boards before experimentation begins. Please provide the following details about your IRB approval process.
- Type of IRB (high school, university, etc.)
- Date of IRB Approval or Renewal (MM/DD/YYYY)
- Approval Number Assigned by the IRB (if none, write 1)
- Notes that you would like to share:

1d. IRB Upload - Human Behavioral
Upload your IRB approval (or summary page if over 3 pages long), a copy of the blank informed consent form you used (if any), AND a copy of a blank sample survey (if any). Even if you believe your project is exempt we would like to know a few details.
- Your IRB approval form must be signed and boxes properly checked or your entry might fail to qualify.
- Upload your blank survey and a copy of the informed consent document if documentation of informed consent/assent/parental permission is required by the IRB.

2. Does your project involve the use of human tissue or cell lines?
- Yes (go to 1a)
- No (go to 2)

2a. Is your tissue or cell line exempt from pre-approval by an Institutional Review Board (IRB)? You will be asked to provide information about the source of the tissue either way.
   Studies that are exempt from IRB approval include:

   o *Studies in which the data are preexisting and publicly available.*
   o *Behavioral observations of unrestricted public settings in which*
      - *the researcher has no interaction with the individuals being observed and*
      - *the researcher does not manipulate the environment and*
      - *the researcher does not record any personally identifiable data.*
   o *Research in which the student receives preexisting or retrospective data in a de-identified/anonymous format.*

   The student mentor must certify in the online recommendation form that the data or tissue samples were not collected for the purpose of the student's project, have been appropriately de-identified before being given to the student and are in compliance with all HIPAA laws.

- Yes (2d & 2e will appear)
- No (2b & 2c will appear)

2b. If your tissue is not exempt, provide the following information:
- Title of Study from which tissue/cell line was obtained
- Type of IRB (high school, research institution, etc):
- Date of IRB Approval (MM/DD/YYYY)

2c. IRB Upload - Human Tissue/Cell Lines
Upload the summary page of the IRB approval from which the tissue/cell lines came. Your mentor/supervising scientist should be able to help you locate this required information.

2d. If your tissue is exempt from IRB review, provide the following information:
- If cell line/tissue was obtained from a commercially available collection, indicate the source and catalog number.

- If the cell line/tissue was obtained from a non-commercial source, describe the tissue and how/where it was obtained.

2e. Provide documentation from the supplier of the exempt cell line/tissue.
Upload any documentation you may have (receipt), or a letter than explains what was used and how it was obtained.

3. Does your project involve the use of non-exempt data collected from humans (i.e. surveys, test scores, medical records, etc.) that were not collected by you nor your mentor?
- Yes (3a, 3b, 3d & 3e will appear)
- No

3a. Add a detailed explanation of how your data was obtained. (maximum 200 words)

3b. Identifiable information: choose the option below that best describes your data.
- I worked with de-identified data. (This means that there were no names with the data when it was given to you. If it did come with names, do not check this box.)
- When the data (surveys, medical records, etc.) was given to me, it included names. (3c will appear)

3c. Explain when names were removed from the data. (maximum 150 words)

3d. Please provide the IRB approval for the original study:
- Title of Study from which data was obtained
- Type of IRB (high school, research institution, etc):
- Date of IRB Approval (MM/DD/YYYY)

3e. Upload evidence of IRB approval.

VERTEBRATE ANIMAL RESEARCH

4. Does your project involve live, non-human vertebrate animals or non-human vertebrate animal tissue or cell lines? Select all that apply:
- Yes, I observed live, non-human vertebrate animals in their natural habitat(s) (go to Q1 & 2 below + Observational section Q1)
- Yes, I worked with live, non-human vertebrate animals in a Registered Research Institution (go to Non-Human Vertebrate Animal Tissue/Cell Lines Q1)
- Yes, I worked with non-human vertebrate animal tissue/cell lines obtained by a supervising scientist No, I did not work with non-human vertebrate animals (go to Q1 & 2 below + Other Uses Q1)

1. Provide additional information about your work with non-human vertebrate animals.
- List the genus, species, common names of the animal(s) involved in the project (maximum 75 words):
- Explain where the study was conducted, including name and location of research institution or field work (maximum 150 words):
- Please provide a description of how animals were used in this research. (maximum 300 words)

2. Did you have any physical contact whatsoever with the animals?
- Yes (3 will appear)
- No

3. Explain the physical contact.

Observational and Behavioral Non-Human Vertebrate Animal Research

1. Did your study only involve observations of the animal(s) in their natural habitat? Note that students may not alter the animal's natural habitat for observational studies.
- Yes: I solely observed the animals in their natural environments; no experimental or behavioral procedures were conducted for the project; the study did not affect the animal's health or well-being by causing stress or discomfort
  - *Your project is exempt from IACUC approval because you made observations of animals from afar with no direct contact or stimulus that would change their natural environment in any way. If your project did require an IACUC approval, please change your response to "no" and complete the additional questions below.*
- No: My project involved more than observations.

2. Describe your interactions and trainings to work with the animals (Observational and Behavioral). What trainings did you undergo, if any?

3. Please provide any information on field permits, gaming licenses, or permissions that you or your mentor obtained for this research. (maximum 150 words)

4. Permits - Animal Behavioral
   Please upload a scan of any permits or permissions you obtained prior to experimentation. Permits must be signed and boxes properly checked.

5. Research Institutions
- Was the study performed in conjunction with a Registered Research Institution?
- Institution Name:
- Title of study receiving IACUC approval: IACUC Approval Number:
- Date of IACUC approval (MM/DD/YYYY):

6. Please provide a brief description of the supervising scientist's study, and how your work is related to this study (200 words max)

Non-Human Vertebrate Animal Tissue/Cell Line Studies

1. Does your project involve non-human vertebrate animal tissue/cell line that is exempt from IACUC review?
- Yes, it is exempt (questions 2, 3, 4 & 5 will appear)
- No, it is not exempt (questions 2, 5, 6 & 7 will appear)

2. Did you handle the tissue/cell line?
- No, I ONLY looked at images
- Yes, I handled the tissue
- Other

3. Non-human vertebrate animal tissue/cell line exempt from IACUC review:
- If cell line obtained from commercially available collection, please mention source and catalog #. If cell line from a private source, provide some identifying information from the supplier.
- List the genus, species, common name and tissue(s) of the animal(s) involved in the project.
- If cell line/tissue was obtained from a commercially available collection, indicate the source and catalog number.

- If the cell line/tissue was obtained from a non-commercial source, describe the tissue and how/where it was obtained.

4. Provide documentation from the supplier of the exempt cell line/tissue.
Upload any documentation you may have (receipt), or a letter to explain the source.

5. Describe your interactions and trainings to work with the vertebrate animal tissue.
- Please explain your interaction with the tissue. (maximum 200 words)
- Please provide a description of the training you received (maximum 100 words)

6. Please provide the following information about the supervising scientist's study:
- Name of Registered Research Institution (and department, if any):
- Name, title, and contact information for supervising scientist:
- Title of the supervising scientist's study receiving (IACUC) approval:
- IACUC approval number:
- Date of IACUC approval (MM/DD/YYYY):
- Describe the original study and how is your project related to this study?
- List the genus, species, common name and tissue(s) of the animal(s) involved in the project.

7. IACUC Upload - Non-Human Vertebrate Animal Tissue
Please upload a copy of the summary page of the IACUC approval for the original study. Paperwork must be signed and boxes properly checked.

Other Use of Live Non-Human Vertebrate Animals
1. Describe your interactions and trainings to work with the vertebrate animals.
- Please explain your interaction with the animals. (maximum 200 words)
- Please provide a description of any trainings you received on working with vertebrate animals and the dates of training(s). (maximum 100 words)

2. Please provide the following information about the supervising scientist's study:
- Name of Registered Research Institution (and department, if any):
- Name, title, and contact information for supervising scientist:
- Title of the supervising scientist's study receiving (IACUC) approval:
- IACUC approval number:
- Date of IACUC approval (MM/DD/YYYY):
- Describe the original study and how is your project related to this study? (maximum 250 words)

3. IACUC Upload - Live Non-Human Vertebrate Animal Study
Please upload a scan of the summary page of the IACUC approval for the original study. Paperwork must be signed and boxes properly checked.

RESEARCH INVOLVING POTENTIALLY HAZARDOUS BIOLOGICAL AGENTS (PHBAs)

1. Did you work with PHBAs, including microorganisms (including bacteria, viruses, viroids, prions, rickettsia, fungi and parasites) or recombinant DNA technologies?
- Yes (go to 2 & 3)
- No

2. Provide additional information about your work with potentially hazardous biological agents. List the work site(s) of the project:
- List the organisms:
- Describe any training completed: Describe the supervision involved:
- Was this work completed at a Registered Research Institution or BSL-2 lab?

HAZARDOUS MATERIALS

1. Did you work with Hazardous Materials such as chemicals or controlled substances, hazardous devices and/or radiation?

2. Describe the materials you worked with that qualify as Hazardous Materials.
- Yes (go to 2 & 3)
- No

3. PHBA/Hazardous Materials Risk Assessment Upload
Upload a completed Risk Assessment form.

ADDITIONAL PAPERWORK & INFORMATION
Optional Paperwork Description

If you wish to provide additional paperwork to show approval processes from your local science fair, etc. you may do so here. Please describe what you are uploading and why in the text box, and upload your documentation in the next upload section.

Task 4: Science Research Description

1. Project Category
Select the category that best fits your project. Three PhD-level evaluators with expertise in the area you choose below will review your work.
- Animal Sciences
- Behavioral and Social Sciences
- Biochemistry
- Biomaterials
- Cellular and Molecular Biology
- Chemistry
- Computer Science
- Computational Biology and Bioinformatics
- Earth and Planetary
- Engineering
- Environmental Science
- Genomics
- Mathematics
- Medicine and Health
- Materials Science
- Neuroscience
- Physics
- Plant Sciences
- Space Science

2. Project Theme (optional)
Research submitted to Regeneron STS is often interdisciplinary. Please check any of the boxes below that describe your project. This information is primarily used for media purposes and identifying future trends in categories. Please select all that apply.

3. Project Title
Enter your project title. For any symbols, please write the name of the symbol in all capital letters (ALPHA, GAMMA, etc.) Otherwise, please use normal Title Case.
- Full Project Title:
- If the title of your project requires any special symbols or formatting (such as
- italics) please explain here:

4. Individual Research Projects
Combining individual research projects into team projects to submit to other competitions is against STS Rules. An individual project must remain so through competition season (through June 2021). Please verify that you do not have plans to combine the research submitted to the Regeneron Science Talent Search with another high school student for a different competition.
- I do not have plans to combine this research with another high school student for competition.
- I do have plans to combine this research, thus am not eligible for Regeneron STS.

5. Where was the experimentation / research conducted? Select all that apply.

6. Please check all that apply to this research experience:
"Mentor" below can mean a scientist, engineer, mathematician, etc. Mentorship can be formal or informal. "Research" can apply to science, mathematics, engineering, invention.

7. Primary Research Location
   • Name of Research Location (institution, university, park, school, etc.)
   • Describe the Research Location (please include name of lab)
   • Was the primary research location in the United States (or a U.S. territory)?
   • Research Location City, State, Country
   • Research Location State
   • Research Location Country
   • Website

8. Mentors
Please provide information on the adults, undergraduate student or higher, with whom you met and worked in any way related to your research. You will be asked to provide their contact information in
Task 10.
   • Mentor 1
   • Mentor 2
   • Mentor 3

9. How did you connect with your mentor(s)? (maximum 100 words)

10. How did you get the idea for your research? (maximum 200 words)
Explain the development of your research question and/or engineering goals. Was the project assigned to you?

11. What was the duration of the research? (maximum 100 words)
Explain the amount of time you spent on the research project that you have submitted, and provide the start and end date. It is important for us to know the start and end date of data collection.

12. If your research was conducted as part of a larger research project or group, explain how your work is independent of this larger project. (maximum 200 words)
If there were other high school students in the group (currently, or any work completed on this project in past years), be specific about how your work was similar to and different from other students.

13. Please attribute the support you received in each area of the research process and highlight what you claim as your own, original, unique contribution. (maximum 200 words per section)
Provide a description of what you did in sentences, more than simply stating a percentage or writing "all."
   a. Developing / Initiating the purpose of the research
   b. Designing the procedures
   c. Implementing the procedure (including special techniques or the use of special equipment)
   d. Gathering / Recording data
   e. Analyzing data
   f. Formulating conclusions

14. Describe any limitations of your research. (maximum 150 words)

15. Indicate any other substantive guidance received, as well as any prior research involvement or training that helped you in conducting your own work in this project.
This can include any meetings with or guidance from a scientist you may not consider a mentor, a parent or teacher suggestion that helped refine the project, or anything outside of working with your mentor. (maximum 200 words)

16. Are you related to anyone who works in the lab or environment in which you conducted your research? This is permitted and students are not penalized if they are related to their mentors. However, it is imperative to disclose this information.
   • If so, please describe your relationship and the relative's involvement in your project. (maximum 150 words)

17. Statement of Independence
Frequently Regeneron STS applicants perform research that is similar to that of parents, mentors, relatives, friends and/or other high school students. This is expected, since science is a cumulative process, each finding built on a previous one. The influence and assistance of those around you might be reflected in your responses to the questions above, but in some cases might be difficult to articulate because their roles are a bit less defined. We would like to give you the opportunity to reassure the evaluation committee that while the above-mentioned influences may exist, the work you have submitted is your own and not that of a parent, mentor, relative, friend or any other person. Failing to disclose similar or related research of which you are aware or failing to mention any person who has either closely or loosely guided you, and their relationship to you and your family, is a violation of our rules and the ethics statement.
   • I certify that there are no additional people who have done research in an area of science close to mine, nor is there any additional person who has closely or loosely advised me, contributed to my research or had any influence on my work.
   • There is another person or persons I would like to mention and explain their influence or contribution.
       o Please explain any research or person that has influenced your work outside of the individual tasks in the questions above. Provide as much supporting detail as possible. (maximum 200 words)

18. Are you submitting a published research paper as your Research Report (full or partial)?
Published research is permitted; it is not required. We only recommend submitting published research papers if the entrant is the first or sole author of the paper, and if a mentor will attest that the bulk of this work can be attributed to you.
   • Yes, the work I am submitting is published in a scientific journal (in full or a segment of the work).
   • No, the work I am submitting is not published.
   • The work I am submitting is not yet published, but has been submitted for review at the time of the application's deadline.

If yes or not yet: Provide information about the published (or soon to be published) paper you are submitting to STS.
   • Please provide journal reference:

   • How would you describe your contribution:

19. Do you have any patents related to your STS research? Select all that apply.
   • I have at least one patent.
   • I have a patent pending.
   • I am in the process of applying for a patent. I plan to apply for a patent in the future.
   • I do not have, nor do I plan to apply for any patents related to my research.

20. Do you have any patents unrelated to your STS research? Select all that apply.
   • I have at least one patent.
   • I have a patent pending.
   • I am in the process of applying for a patent. I plan to apply for a patent in the future.
   • I do not have, nor do I plan to apply for any patents unrelated to my research.

21. Intellectual Property and Viewing Your Application

You are required to discuss your Regeneron STS entry with any scientists with whom you worked to confirm that they do not have concerns regarding the sharing of this intellectual property for the purposes of the competition (see the Rules and Entry Instructions Page X for the Society's statement on Intellectual Property).

In addition to sharing your application with our judges, evaluators and public relations teams, your application may also be shared with your mentors and recommenders.

I have confirmed that I have permission to share this intellectual property.

Task 6: Previous Research

Tell us about your previous science research projects

1. Individual Science Projects (optional)
List any individual research projects (not class projects) to which you have contributed during high school. A project does not need to have been submitted to a competition to be listed. List projects in chronological order, starting with the most recent project on top.

Check the box in the far right column if this is the research project you are submitting to Regeneron STS. Supervising scientist/mentors

 2. Team Science Projects
Have you ever completed research with a team member?
- Yes
- No
  - *You are submitting that you have never conducted research as part of a student team project. Thanks for letting us know! Just to clarify, if you HAVE ever conducted research as part of a student team, you need to check YES and answer questions 2a-d. Even if you were a primary member of a team or conducted one portion of the research, it is still considered a part of that team project. Team research is not eligible for the Regeneron Science Talent Search, but we are curious about your past projects. If you have not conducted any team research, continue on to question 3.*

2a. Team Research Projects
Research conducted as part of a student team project is not eligible for Regeneron STS. This includes any research or portion of research regardless of whether it has been or will be submitted for competition or not. Even if you were a primary member of a team or conducted one portion of the research, it must still be considered a part of that team project. Please provide information on any team projects to which you have contributed.

2b. Clarification of Team Research (maximum 250 words)
Explain how the research you are submitting with this application is different from these team projects. Be sure to address each aspect of your research—purpose, procedure, data, and conclusions.

3. Conference Presentations, Abstract Publications, Student-Level Publications, Paid Publications, or Future Submission Plans (optional; maximum 300 words)
Please list any conferences in which you have presented your work or plan to present your work in the next 3 months; instances where the abstract of your research has been published; publications in student-level, non-peer reviewed, or pay-for publication journals; and future publication plans (including articles submitted to journals, but not yet published) (If any):

4. Ph.D.-level Peer-reviewed Journal Publications
Are you listed as an author or coauthor on any scientific publications? List the name(s) of any coauthor(s). Indicate if a coauthor is a high school student. Check the box in the far right column to share if this research is in any way related to the research you are submitting to STS.

5. Science Training Institutes, Research Progams, Summer Programs (optional)
Please list the names of programs where you have conducted research projects, science summer camps you have attended, etc. Check the box to indicate if your STS project was conducted at any of these institutions.

Task 7: Essay Questions

Tell us about your project, inspiration, and impact. The word limit is the maximum allowed; concise answers below this limit are encouraged. First or third person responses are acceptable.

1. Research Project "Layperson's Summary" (maximum 200 words)
Summarize your project in layperson's terms, while maintaining scientific accuracy. Your explanation should be easily understandable and include background, procedures, conclusions and relevance. This summary will aid readers, including evaluators, journalists and the public.

2. Project Inspiration (maximum 200 words)
What inspired you to conduct this research project? (What is the story behind your research topic?)

3. STEM Interests (maximum 200 words)
After completing your research, how has your interest in science, engineering, and/or math been clarified? What are your other STEM-related interests besides your project?

4. Project Benefits and Impact (maximum 200 words)
What benefits do you think your research will bring to the world, and/or to your field? What additional steps, and by whom, might be needed for this benefit to be realized?

5. COVID-19 Pandemic (maximum 200 words)
The COVID-19 pandemic has been experienced differently throughout the country and world. Share how it has impacted your life, most especially its impact on your learning and as applicable on your submitted project and ability to work on that project.

6. Your Potential as a Scientist, Mathematician or Engineer (maximum 250 words)
Address through specific and concrete examples what characteristics you have that best demonstrate your affinity and aptitude for being a good scientist. What have you done that illustrates scientific aptitude, curiosity, inventiveness and/or initiative? How does your experience suggest future success as a scientist, mathematician or engineer? What do you plan to study in post-secondary education and what occupation do you plan to pursue? What do you hope to be doing 10 years from now?

7. Major Scientific Question (maximum 250 words)
What is a major scientific question in your field whose answer you believe will have a significant impact on the world in the next 20 years, and why? Using examples from your own experience or research, explain how you might envision addressing the question over the next 20 years.

8. "Tweet" about your project! Tell us about your project in 280 characters or less. The Society might share this response if you are named a scholar or finalist.

Task 8: Activities, Interests and Awards

EXTRACURRICULAR ACTIVITIES, VOLUNTEERISM & EMPLOYMENT
We want to know more about you, your day-to-day life, how you spend your time, and why. Please select an activity type and describe your involvement in up to seven activities (do not feel pressured to use all seven). If you do not see an exact match for your activity in the list, select "other." We completely understand that COVID-19 has interrupted normal life, including your ability to participate in extracurricular activities and summer programs. If you would like to mention these disruptions in your responses below, please feel free. Note that we will also keep this in mind, regardless of your responses, as we evaluate applications.

How many activities would you like to list? *(Applicants may list up to 7 activities; the questions for each activity are formatted like the sample below)*

Activity #1
- Activity Type:
    - Academic Club
    - Art
    - Athletics
    - Family Responsibilities
    - Foreign Exchange Program
    - Foreign Language
    - Journalism
    - Music (Instrumental)
    - Music (Vocal)
    - Research
    - Social Justice
    - STEM-related Club
    - Student Government
    - Speech/Debate
    - Theatre
    - Volunteer Work
    - Work Experience
    - Yearbook
    - Other
    - Scouting
    - Religious Duties
- Name of Activity (type of sport, name of club, etc):
- Your Role/Leadership Roles:
- How many years have you participated in this activity?
- Explain the time commitment to this activity:
- Awards won/accomplishments related to this activity
- Anything else you would like to share about this activity? (75 words maximum)

Summer Activities
What did you do in the last 3 summers? Tell us about any jobs, activities, research, travel, etc. (Maximum 200 words)
SCIENCE COMPETITIONS AND PROGRAMS

Have you participated in any of the following? Select all that apply.
(Drop downs will appear to collect more information if any of these options are selected).
- Science fair at the local or regional level

- International Science and Engineering Fair (ISEF) Finalist
- Broadcom MASTERS Entrant, Semifinalist or Finalist
- Science training program or summer institute

AWARDS
List special recognitions, awards, honors and scholarships from both school and community, if any. (optional)
Include national or international honors received during your high school career not previously listed in the activities section above. (250 words maximum)

INTERESTS
What single accomplishment are you most proud of and why? OR, Tell us about any challenges you have overcome. (100 words maximum)

Share a fun fact that we might otherwise not know about you. (75 words maximum)

Task 9: Test Scores (optional)

Sharing your standardized test scores is optional. If you choose not to share your test scores, this decision will not be held against you. If you would like to share your scores, enter them in this task, then upload evidence that supports your scores in the next task. Superscoring is permitted. If you are superscoring a Composite test score, use the date of the most recent score in the "test date" column. Students who have transcripts from college courses may upload them at the end of this section. All high school transcripts must be submitted through the High School Report form by your counselor.

Students may enter scores for the SAT, SAT IIs, ACT, AP exams and IB exams.

US Territories: Other Tests
For students attending accredited overseas secondary schools only. If you do not attend school in the US and take different tests than those listed above, please report the test names and your scores here.

Upload Score Reports
Please include all records for scores you shared in this section. You are not required to upload official score reports. You may upload up to 4 files; if you have more than 4 files, please merge them. We ask that you remove extraneous pages about how to interpret scores. Should you need assistance, email sts@societyforscience.org.

Upload College Transcripts
While your high school counselor must upload your high school transcripts in the recommendation form in task 2c, you may upload other unofficial transcripts from college coursework here.

Task 10: Beyond the Project

Information collected in this section is confidential and will not be shared with evaluators or judges. The Society will use this information for general record keeping, and to contact your parents/guardians, teachers, principals, etc. in the event you are named a Scholar or Finalist.

STUDENT INFORMATION
- Your Contact Information
- Your Cell Phone Number (optional)
- Your Home Phone Number
- Your preferred email address for long term contact:
- Your Address
- Date of Birth (MM/DD/YYYY)
- Are you Hispanic or Latino? (optional)
- Regardless of your answer to the prior question, please indicate how you identify yourself (select all that apply). (optional)
- T-shirt Size (adult men's sizes)
- Share your ability to speak, read, or write languages other than English.

Your Name for Public Materials
Please tell us how you would like your name to appear in public materials relating to the Regeneron Science Talent Search (official bio if selected as a finalist, press releases, etc). We collected your legal name in Task 1, but understand that you might prefer a different variation of your name to be used for public materials. Warning: This field often autopopulates from your web browser. Please make sure that your name appears here, not the name of another individual.
- First Name for Public Materials
- Middle Name for Public Materials (optional)
- Last Name for Public Materials

FAMILY INFORMATION
- Do you have any siblings? (optional) Please list the name(s) and age(s) of your sibling(s):
- Are any of your relatives former top 40 finalists or former top 300 semifinalists/scholars/honors group in the Science Talent Search (under Regeneron, Intel or Westinghouse sponsorship?) Please list the name(s) and year(s) of their participation in the Science Talent Search:

Tell us more about Parent/Guardian #1 (same questions asked about Parent/Guardian #2):
- Email Address
- Do you share a primary mailing address with this Parent/Guardian?
- Parent/Guardian #1's Address
- Marital Status in Relation to Parent/Guardian #2 named below (optional)

SCHOOL INFORMATION
Please provide additional information about your high school principal, and the teacher most closely associated with your application. The teacher listed here will receive prizes if you are named a finalist.
- Principal First Name, Last Name, Email
- Teacher First Name, Last Name, Email
- High School Newspaper Name & Email

Mentor Information

In a previous task, you shared the name(s) of your scientific mentors for your STS project. Please provide their contact information here. If the names are not appearing correctly, please leave the mentor names blank, reference Task 4 and enter the contact information for the mentor(s) you listed in slots 1, 2, and/or 3.
(repeated for three mentors)

- Mentor/Supervisor Name, Phone Number, Email Address

Who has been the most positive influence on your scientific endeavors? We will send a letter to this person to tell them that you chose them and to thank them for encouraging and assisting you.

- Name
- Contact Information
- How do you know this person? (maximum 75 words)

Do you intend to major in a STEM-related field in college? (optional)

Regeneron STS Ethics Statement

In order to submit your application, you must agree to this Ethics Statement. **The application system will not allow students to submit until they have completed this section.**

Scientific Research
- I certify that all the information provided is correct and complete without omission to the best of my knowledge and I certify that the Research Report I am submitting is my own individual work, not that of a student team, nor does it represent the work of others.
- I understand that I am responsible for all aspects of my work's authenticity: the research, the Application, and all other documentation in the application process, as well as the display board and oral presentation if I am selected as a finalist.
- I attest that all these submissions are exclusively my work in substance and in presentation. I further understand that scientific fraud, misconduct, misrepresentation of work or attribution thereof, or violation of the rules and/or eligibility requirements may result in disqualification and forfeiture of any monetary awards and that the Society reserves the right in such cases to bar future participation in Society programs.

Judging and Intellectual Property
- I understand and accept that the judging and evaluation process used by Regeneron STS/the Society is confidential and proprietary and that by submitting a Regeneron STS entry, I expressly agree to Regeneron STS/the Society's right to maintain the confidentiality of such process.
- I agree to unconditionally accept the decision of the judges as final and binding in all matters related to the Regeneron STS program and understand that my application and Research Report will not be returned to me but shall become the sole property of Regeneron STS/the Society. I understand that Regeneron STS/the Society makes no warranties, representations or guarantees, express or implied, in fact or in law, with respect to the Regeneron STS program.
- I expressly waive any rights to challenge, inspect, observe or otherwise obtain any information that constitutes the confidential and proprietary information of Regeneron STS/the Society judging and evaluation process. I also agree to permit Regeneron STS/the Society to use all information contained in my application in any way it deems appropriate for publicity purposes.

Eligibility
- I certify that I am at least 18 years of age, or that I am an emancipated minor, or that I possess legal parental or guardian consent to submit the Application and participate in the Regeneron STS, and that I am fully able and competent to submit the Application and to abide by and comply with the Regeneron STS Rules & Entry Instructions. In any case, I certify that I am over the age of 13.
- I certify that I have read and fully understood all rules and eligibility requirements found in the Regeneron STS Rules & Entry Instructions and that I have complied with all rules and meet the eligibility for submitting this Regeneron STS entry.

I attest that all content in my Regeneron STS application adheres to the Ethics Statement above, and agree to the terms of the application.
SIGNATURE REQUIRED

SUBMIT

Once you have completed all required tasks, you will need to hit the green "Submit" button to formally submit your application. You will receive a confirmation email when your application has been received.