Overview: Simons Simplex Collection

What is the Simons Simplex Collection?
The Simons Simplex Collection (SSC) is a resource of phenotypic and genetic data and biospecimens for use by autism researchers. The SSC is the result of a collaboration between the Simons Foundation Autism Research Initiative (SFARI) and 12 university-affiliated research sites across North America to establish a permanent repository of genetic samples and phenotypic data from more than 2,700 families.

Each family in the SSC has one child affected with an autism spectrum disorder and unaffected biological parents and siblings. Rigorous phenotyping helped ensure consistency across the 12 sites in assessment and diagnosis. For more information on the SSC, please visit the SSC cohort webpage on SFARI.org and download the Researcher Welcome Packet.

What is available for my research project?
Qualified, approved researchers can request access to biospecimens, phenotypic data and genetic data or to recruit SSC families for additional studies via the web portal SFARI Base.

Approximately 6,000 phenotype variables were collected from each family, including those from numerous published instruments and an extensive medical history. Nearly all families provided whole blood for each participant. The DNA extracted from whole blood (WB-DNA) and from immortalized lymphoblast cells (LCL-DNA) can be requested. Also available are the lymphoblastoid cell lines (LCLs) and plasma from all mothers and probands (affected individuals). For information on requesting data and biospecimens, please visit the SFARI Base resource page.

How do I get permission to recruit SSC families to participate in my research project?
If you want to recruit families as research participants, you will need to follow the recontacting process as detailed below. You will need SFARI approval for access to phenotypic and/or genetic data and to receive biospecimens. If you would like to access recruited participants’ de-identified SSC data, you will need to include this information in the participant’s consent form as part of the bidirectional data-sharing language.
How do I recruit Simons Simplex Collection participants?

Investigators interested in conducting research studies with SSC families can initiate a recontacting request through SFARI Base.

The recontacting process is detailed below.

1. Create a SFARI Base log in: https://id.simonsfoundation.org/.

2. Go to https://base.sfari.org/ordering and affiliate yourself with your institution. If you do not see your institution, email collections@sfari.org with the following information:
   I. institution name
   II. institutional officer (IO) - This is the person at your university or institution who handles material transfer agreements.
   III. IO’s email address and office phone number
   IV. A SFARI Collections Team member will then contact your IO with instructions for signing the electronic Researcher Distribution agreement.

3. Electronically sign the joinder agreement

4. From the home page of SFARI Base (https://base.sfari.org/ordering) click on ‘Request special SFARI data.’

5. Click on the button labeled ‘Recontacting.’

6. Choose one of your existing projects or click on the link to ‘Create a New Project.’
   I. If you create a new project, you will be asked to create a title, outline your project, and upload an Institutional Review Board (IRB) approval document. Click ‘Save Changes’ to exit the pop up.
   II. Once you’ve selected your project, click ‘OK.’

7. Request approval from the Simons Foundation to recruit families as research participants by completing the recontacting application on SFARI Base and clicking on ‘Submit Request.’ For a description of the recontacting application, please read the SSC participant recontacting application fields section below. Contact collections@sfari.org if you need assistance defining the cohort of participants to include in your request or if you have any questions about the application.

8. An SSC support team member will contact you to confirm the details of your request, including the selection criteria and number of participants. If needed, the support team member will also put you in touch with the Simons Simplex Community at the Interactive Autism Network (SSC@IAN) team to begin planning your study materials.
9. The Simons Foundation will review your request. You will be notified when your request is approved. An SSC support team member will notify you if your request needs to be revised and resubmitted. Sometimes requests are not approved. If this happens, someone from the Simons Foundation will contact you with an explanation.

Note: If you have questions about the review and approval process, please contact collections@sfari.org.

10. Upon approval of your request, your project’s information will be sent to the SSC@IAN team along with a list of participants. You will need to work directly with the SSC@IAN team regarding the timeline and other recontacting details. The SSC@IAN team contacts each family to obtain permission to send their contact information to your lab. The SSC@IAN team will send you contact information for the families that grant permission to be contacted by your lab. In addition to the contact information, a five-digit ID will be provided for each family.

Note: If you have questions for the SSC@IAN team at any time, please contact SSC@IAN recontacting coordinator Jaimie Toroney at Toroney@kennedykrieger.org.

11. Contact families to obtain their consent to participate in your study.

12. Send the list of five-digit family IDs for the families who consent to participate in your study to collections@sfari.org.

13. An SSC support team member will send you a document that maps the four-digit family ID provided by SSC@IAN to the SFARI ID used to identify the family in the SFARI Base dataset.
Frequently asked questions

1. How do I submit a request to recruit SSC families as participants in my research project?
   Create your request and submit your project documentation for access to SSC resources on SFARI Base Ordering.

   Submit a recontacting request through the ‘Request special SFARI data’ tab on SFARI Base. Select the ‘Recontacting’ button and complete the application. If you have any problems submitting the application or if you have additional questions about a specific field in the application, please contact collections@sfari.org.

2. What documents or information must I submit with my recontacting request?
   Please see the description of the SSC recontacting application fields below.

3. What is the SSC@IAN, and what is the team’s role?
   The SSC@IAN is a partnership between SFARI and the Interactive Autism Network (IAN) to create a permanent online research home for the SSC families. The SSC@IAN team works with SFARI, new investigators and SSC families to inform families about new studies, get their permission to send contact information to new primary investigators and update them regarding research progress.

4. When can I expect to receive the families’ contact information?
   The contact information will begin being sent to you about two to three weeks following approval of your recontacting request.

5. What do I do after I submit a recontacting request?
   Contact collections@sfari.org to double-check your application. The request will be considered by the SFARI science team, and we will communicate with you regarding its status (approve, deny or additional questions).

   As soon as the request is approved, you will work with the SSC@IAN team to create the email and online authorization templates for your study (templates at the end of this document) and submit these to your IRB. Additionally, the list of requested families will be sent to the SSC@IAN team.

   The process from submission of application to beginning of recontacting via SSC@IAN typically takes between one to four months. The SSC@IAN team will contact each family to obtain permission to send their contact information to your laboratory. The SSC@IAN team will send you contact information for the families that grant permission to be contacted by your lab.
6. What should I do if I need to edit my request?
   Go back to your request using the same steps as above. If you have difficulties, you may contact collections@sfari.org.

7. Who should I contact if I have additional questions?
   For additional questions about website navigation or difficulties uploading forms, or any questions about the fields in the recontacting application, please contact collections@sfari.org. If you have questions for the SSC@IAN team, please contact SSC@IAN recontacting coordinator Jaimie Toroney at Toroney@kennedykrieger.org.

8. How do I find the SSC phenotype data for the families that agree to participate in my study?
   An SSC support team member will send you a document that maps the five-digit family ID provided by SSC@IAN to the five-digit SFARI ID used to identify the family in the SSC dataset. You must include the bidirectional data-sharing language in your consent form in order to receive the identified data.

9. How do I find a list of research projects using the SSC data and biospecimens?
   You can locate a list of research projects using the SSC data and biospecimens on SFARI Base Ordering. Log in using your username and password. Click on ‘Learn About SFARI Base’ in the menu, and then click on the ‘SFARI Base Projects’ link. Selecting the filter for ‘SSC’ at the top of the page lists research projects using the SSC.

10. How do I know what information should be included in my recontacting email provided to SSC@IAN? What about my consent forms?
    Template email scripts are provided at the end of this document for your convenience. For your consent form, you must be sure to include two aspects of data transfer (bidirectional data-sharing language): consent for you (researcher) to receive linked, identified phenotype and/or genetic data from the SSC database using a linked ID number that is not provided until participants consent into your study and sign their agreement to bidirectional sharing of their data. This language also provides consent for you to share your study’s data back.
with SFARI Base, for inclusion in the SSC database, in order to continue to enhance this resource.

Suggested language is provided below. Please contact collections@sfari.org if you intend to make any changes to the suggested language. Failure to do so, or to include the language in your consent form at all, may result in delays to your project.

“(If study contains non-SSC participants, start with: For those individuals who participated in the Simons Simplex Collection,) we are asking your consent for the Simons Foundation and the SSC@IAN to share with {university} the clinical, demographic and genetic data collected during your participation in the SSC. This information will be shared using your linked research ID number and using a secure file transfer system. We are also asking for your consent to share the data we collect during this study here at {university} with the Simons Foundation and the SSC@IAN in order to add to the information that was collected during your participation in the SSC.”

12. Is there a fee for SSC@IAN’s recontacting services?
   Yes. Please see the last page of this document for the SSC@IAN fee schedule for an estimate of services and costs. Please note that these costs may be different for your individual study. You should contact the SSC@IAN team for a more exact quote based on your needs.
SSC participant recontacting application fields:

1. **Text of the script to be used by the SSC@IAN team when recruiting families on your behalf**
   Specify the exact language that you require the SSC@IAN team to use when they speak to families to obtain their permission to give you their contact information. This language must be approved by your IRB before recontacting begins.

2. **Text of the script to be used by your lab staff when recruiting participants for your study**
   Specify the exact language that your research staff will use when they call a family to obtain consent for participation in your research study. This language should be approved by your IRB.

3. **List specific criteria (if known, include family IDs)**
   Indicate the inclusion and exclusion criteria for your desired families. If known, include the five-digit SFARI IDs. If you don’t know the SFARI IDs for the families that you want to contact, please enter your selection criteria in the application and the SSC support team will generate a list of families that meet your requirements. The support team will contact your lab to confirm.

4. **Number of families**
   Provide the final number of families that you want in your sample. Please be aware that this is not the number of families that you think you will need to contact in order to get the final sample size. The SSC support team and SSC@IAN will work with you on strategies and suggestions to improve recruitment efforts.

5. **Expected impact on SSC families**
   State benefits, risks or inconveniences associated with your study that may directly impact the SSC families. Include any participation costs (e.g., traveling expenses) or any compensation (e.g., participant payment) in this statement.

6. **Logistics and additional information**
   If known, please include a description of relevant logistical details, such as travel requirements, cost, time commitments or any additional information you believe would be of interest to SSC families. Also, if you intend to meet families at the SSC data collection site, please include a description of any required accommodations and any prior communications with the site.

7. **Indicate the funding source for your research project (e.g., National Institutes of Health)**

8. **Upload the approved full-text IRB protocol PDF and all relevant consent forms as a single PDF file**
The consent form(s) must include explicit information about linking each research participant to his or her SSC data and transferring your study’s data into the SSC database.
Checklist for recontacting projects

For SFARI approval
Application items in SFARI Base:
- completed application
- signed researcher distribution agreement
- IRB project approval
- IRB approved consent form
- IRB approved scripts and emails (Please use the template below.)

Please email collections@sfari.org if you have questions related to the SFARI application and approval process.

For SSC@IAN
The following items will be forwarded to SSC@IAN by SFARI after project approval:
- SFARI-approved application
- IRB project approval
- IRB-approved consent form
- IRB-approved scripts and emails

The following items are sent directly to SSC@IAN by the researcher:
- signed SSC@IAN subject recontacting agreement (print, sign and email back to Jaimie Toroney at Toroney@kennedykrieger.org)
- IRB-approved SSC@IAN recontacting authorization online form (Please use the template below.)

For questions related to the SSC@IAN recontacting authorization and agreement forms please email Jaimie Toroney at Toroney@kennedykrieger.org or call 443-923-4153.

Optional item:
- ORCA data-collection activities for the researcher (only used if SSC@IAN will be directly involved in collecting online data for the researcher’s study)

Typically, communication with SSC@IAN begins after SFARI approval. However, in certain circumstances, it may be necessary to initiate communication earlier. Please discuss with the SFARI researcher liaison via collections@sfari.org.

Please be aware:
- As a result of a successful authorization, SSC@IAN will release only a limited amount of information, which includes contact information, the SSC ID and salient medical data required for recruitment.
- Data transferred as a result of an authorization cannot be used for research unless/until the individual(s) in question is consented for a
project. The data transferred during authorization expire and must be
destroyed by the researcher after one year if the research participant
does not join the study.

• For every individual, including other family members, for whom you
  want data from SFARI Base, you must have consent, authorization or
  some other IRB-approved process in place. Make sure to have a strategy
to obtain all central repository data that you need for your analysis.
Email Template for SSC@IAN Recontacting

In this template, items that will always appear no matter which study is recruiting appear in black. You should provide text for the green items to fit your study’s criteria.

Invitation Email with Link

When you joined the Simons Simplex Community @ Interactive Autism Network (SSC@IAN), we promised to inform you about SSC-focused research projects. Below is an invitation from a team of researchers seeking SSC families to participate in a new study. Contact your SSC@IAN research coordinator, Jaimie Toroney, at 443-923-4153 or toroney@kennedykrieger.org if you have any questions about this research invitation.

Dear Parent,

Email will briefly describe the research opportunity, what it involves and if there is any incentive provided.

To learn more, click on the link below: [LINK]

This section thanks the family for their attention, etc.

Sincerely,

Researchers Name
Institution
Recontacting Authorization Online Screens for SSC@IAN Recontacting

Screen 1
Here, the outside study is explained in more detail. This may include the goals of the study, eligibility criteria, what participation involves, how much time it will take to participate and any incentives provided. (See the example document that follows this template.) The explanation must contain language reassuring the participant that they do not have to answer any specific question and can withdraw from the study at any time.

Eligibility Questions:
For most studies, families will be eligible based on their SSC status or information we already possess and have screened for (such as child age). If there are additional eligibility criteria, we will screen for them here.

Participation/Authorization Section:
Please note that SSC@IAN is serving as a resource linking SSC families and researchers. You do not have to participate in this study. Not participating will not affect the care you receive from any health provider nor your standing as a participant in the SSC, IAN Research or SSC@IAN. Please note: This study is being performed by [OUTSIDE INSTITUTION]. It is not endorsed by or performed under the auspices of the IAN Research project at Kennedy Krieger Institute/Johns Hopkins University.

1. [FULL NAME], would you be interested in participating in the [Study Title] study?

   • Yes
   • No

2. [Shows only if answer to #1 is yes]
We request that you grant SSC@IAN and the [outside institution] research team permission to share information as described below.

Read the authorization, and then click ‘yes’ or ‘no,’ as you choose.
I HEREBY AUTHORIZE

1) the [outside institution] research team to release information about my involvement in the [Study Title] study to SSC@IAN so SSC@IAN will know how many families were interested in, started and actually completed the study.

and

2) SSC@IAN to release the information listed below for [designated family members such as PARENT, PROBAND, SIB1] to the [outside institution] research team so they can contact me about study
participation and link information they collect through the study with information already collected through my family’s participation in the SSC and IAN. (This makes research more efficient because the team won’t need to ask you to do the same tests, interviews or surveys again. They can spend their time with you and your family addressing new research questions but still access relevant information from these earlier studies to help them in their analysis.)

• Last Name, First Name and Middle Initial
• Simons Simplex Collection ID Number
• Mailing address
• Email address
• Phone numbers (home, work or cell) and preference regarding which number researchers should call
• Gender
• Date of birth
• Additional info depending on study protocol

This authorization will expire one year from today’s date. I understand that I may revoke this authorization in writing (submitted to the SSC@IAN team) except to the extent that action has already been taken.

I understand that this authorization is voluntary. I understand that my and my family’s participation in the Simons Simplex Collection project, the IAN Research Project and SSC@IAN will not be affected if I do not grant authorization for sharing of information and if I do not join this particular study.

On behalf of [SELF, PROBAND, SIB, etc.], I grant authorization for the exchange of information described above:

• Yes

• No
(Note: Red strike-through text in this document is part of the approved template from Kennedy Krieger Institute.

Part I. INSTRUCTIONS
The Researcher must complete the following steps in order to qualify for subject recruitment assistance using the IAN Research Database:
1. Subject recruitment assistance is limited to Institutions in the United States and U.S. Territories. The institutional review board of the institution must comply with the requirements listed in Part IV.
2. Submit an Online IAN Research Subject Recruitment Application. If necessary and as resources permit, IAN Research will contact you regarding your request to determine whether the IAN Research Database can be of assistance in subject recruiting for the research project.
3. Submit a copy of the principal investigator’s current institutional review board (IRB) approval for the Research Project and IRB approval of the recruitment letter. This recruitment letter will be sent to prospective recruits by IAN Research.
4. Sign and mail an original copy of this IAN Research Database Subject Recruitment Agreement to:
IAN Research, Department of Medical Informatics
Kennedy Krieger Institute
First Floor Painter Building
3825 Greenspring Avenue
Baltimore, MD 21211

Part II. RIGHTS TO USE OF SUBJECT RECRUITMENT ASSISTANCE
Researcher requests subject recruitment assistance using data collected by the Interactive Autism Network (IAN) Research Database to recruit research subjects for clinical research projects and agrees to the following terms:
1. Researcher understands and acknowledges that subject recruitment assistance is performed at the sole discretion of IAN Research; that the criteria for and the conduct of selection of recruits is also at the sole discretion of IAN Research; that IAN Research cannot guarantee the accuracy and reliability of subject recruitment information provided by participants of the IAN Research Database; and that IAN Research cannot guarantee that it will meet a predefined level of response or eligibility for the research project.
2. Researcher understands and acknowledges that IAN Research is subject to limitations in resources that may restrict its ability to provide subject recruitment assistance to every qualified applicant or to provide subject recruitment assistance to meet a specific deadline.
3. Researcher is expected to consider the needs and time pressures of families with autism and to only use the number of participants they need to answer the scientific question that is the subject of the research project.

SSC Recruitment Process Document
4. Researcher will require anyone who utilizes the assistance to comply with this Agreement and will comply with any rules and regulations imposed by their institution and its institutional review board in recruiting subjects.

5. Researcher will ensure that investigators who utilize IAN Research Database data use appropriate administrative, physical and technical safeguards to prevent use or disclosure of the data other than as provided for by this Agreement.

6. Researcher will report any use or disclosure of the data not provided for by this Agreement of which Researcher becomes aware within 15 days of becoming aware of such use or disclosure.

7. Researcher will comply with follow-up requests to provide information regarding the responses received to the subject recruitment assistance provided.

Part III. ATTRIBUTION

If Researcher publishes manuscripts that include subjects recruited with subject recruitment assistance from IAN, Researcher agrees to the following:

1. Researcher will include language similar to the following in the methods section of manuscripts in order to accurately acknowledge assistance from IAN. Depending upon the length and focus of the article, it may be appropriate to include more or less than the example below; however, inclusion of some variation of the language shown below is mandatory.

   “Subjects were recruited with the assistance of the Interactive Autism Network (IAN) Research Database at the Kennedy Krieger Institute and Johns Hopkins Medicine – Baltimore, sponsored by the Autism Speaks Foundation.”

2. Researcher will submit all manuscripts to the IAN Research Program Director prior to publication. This review will not be a scientific review but is intended to ensure that the attribution requirement above is correctly implemented. IAN will maintain confidentiality of the manuscript.

Part IV. RESTRICTIONS

1. Institutional Review Board (IRB) Compliance - Researcher certifies that the institution provides IRB approval or exemption for the conduct of the research and that Principal Investigator is in full compliance with the regulations and policies of said IRB. Researcher agrees to report promptly to IAN any proposed changes in the research project. Before receiving subject recruitment assistance, you will need to provide a copy of your IRB approval for the project described in this application, as well as IRB approval of the recruitment letter proposed to be used by IAN Research. The IRB approving the project described in this application must be either (1) fully accredited by the Association for the Accreditation of Human Research Protection Programs, Inc. (AAHRPP) or (2) be at an academic medical center and approved by the U.S. Department of Health and Human Services (HHS) Office of Human Research Protections (OHRP).
2. NO WARRANTY AND LIMITATION OF DAMAGES - The IAN Research Database data is provided as a service to the research community. Subject recruitment assistance is provided “as is.” IAN Research does not make, and expressly disclaims, any express or implied warranties, including, without limitation, any implied warranties of merchantability, fitness for a particular purpose and non-infringement. In no event shall either party be liable for any incidental, special, indirect, punitive or consequential damages arising out of or relating to this agreement, even if such party has been advised of the possibility of such damages.

3. Nothing in this indemnification shall authorize the sale or distribution of the IAN Research Database data.

4. The terms and conditions of this Agreement are binding upon Researcher, including any and all research associates, graduate students and collaborators working on the Research Project.

5. The Parties agree and acknowledge that the relationship of Researcher and IAN is in the nature of an independent contractor. This Agreement shall not be deemed to create a partnership, joint venture or franchise, and neither party is the other’s agent, partner, employee or representative.

6. Neither Researcher nor IAN may use the name, trade name, trademark, domain name or other designation of the other party in connection with any products, promotion, marketing or advertising without the prior written consent of the other party.

7. The waiver or failure of either party to exercise any right in any respect provided for herein shall not be deemed to be a waiver of any further right hereunder.

8. This Agreement shall be binding upon and inure to the benefit of each of the Parties, including their respective heirs, legal representatives, successors and assigns. Institution may not assign this Agreement or any of its rights or obligations hereunder without the prior written consent of IAN.

9. This Agreement constitutes the entire understanding of the Parties with respect to the matters referred to herein and supersedes all prior negotiations, commitments and understanding with respect thereto. No variation or modification of this Agreement or waiver of any terms of provisions hereof shall be deemed valid unless in writing and signed by authorized representatives of both Parties.
ACKNOWLEDGED AND UNDERSTOOD BY PRINCIPAL INVESTIGATOR:

____________________________   _________________________
Signature of Principal Investigator   Date

____________________________   _________________________
Printed Name of Principal Investigator    Title
Standard SSC@IAN Recruitment Services:

- general processing and management of recruitment plan/protocol
- review and editing of subject recruitment letter
- customization, setup and implementation of recruitment protocol
- monitoring and tracking of recruitment response
- secure transfer of contact info and IDs for families that indicate interest in study

Base Cost: $5,000

Add-on Recruitment Services:

- recruitment letters sent by standard mail to potentially eligible families
- phone calls to potentially eligible families (only available to projects recruiting <50 families)

NOTE: Additional costs will apply for add-on recruitment services and for projects of increased complexity and size. A cost estimate will be prepared following the initial team discussion and review.