Randomized Control Trial Phase: Baseline Survey
(Parents of All Participants)

TITLE OF RESEARCH STUDY:

Title: NYCKidSeq: Incorporating Genomics into the Clinical Care of Diverse NYC Children

PRINCIPAL INVESTIGATOR (HEAD RESEARCHER) NAME AND CONTACT INFORMATION:

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WHAT IS A RESEARCH STUDY?

A research study is when scientists try to answer a question about something that we don't know enough about. Participating may not help you or others.

People volunteer to be in a research study. The decision about whether or not to take part is totally up to you. You can also agree to take part now and later change your mind. Whatever you decide is okay. It will not affect your ability to get medical care within the Mount Sinai Health System or with your private practice doctor.

Someone will explain this research study to you. Feel free to ask all the questions you want before you decide. Any new information that develops during this research study that might make you change your mind about participating will be given to you promptly.

Basic information about this study will appear on the website http://www.ClinicalTrials.gov. There are a few reasons for this: the National Institutes of Health (NIH) encourages all researchers to post their research; some medical journals only accept articles if the research was posted on the website; and, for research studies the U.S. Food and Drug Administration (FDA) calls "applicable clinical trials" a description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time.

PURPOSE OF THIS RESEARCH STUDY:

The purpose of this study is to learn how genomic testing can help children and young adults with rare diseases. Genomic testing is a way for scientists to study your DNA (genetic material inherited from

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your parents that at least in part determines your features like eye color, height, and risk of many diseases). Another major goal of this study is to learn the best way to communicate these complicated genomic results back to families likes yours, by having parents answer a series of surveys. Everyone in the study must have a least one parent available to answer these surveys. ***This consent form is focused only on the initial survey.***

Another way we do this is by randomly assigning your child to participate in a standard-of-care genetic counseling group, or a genetic counseling group that uses a special Communication Tool, called GUIA, that we are developing to help better explain genomic testing results back to families. This random assignment occurred before your first study visit so we know which genetic counselor to schedule you with.

The consent form for the entire study will be reviewed with you at your child's first study visit. Signing this initial survey consent does not obligate you to participate in the rest of the study.

Your child may qualify to take part in this research study because he/she has epilepsy, developmental delays, heart disease, or a low immune system, and your child's physician at Mount Sinai or private practice doctor thinks there may be a genetic cause for this condition. You are being asked to participate in the initial survey **before** you have your first study visit with a genetic counselor because we do not want that meeting to influence your responses to the initial survey in any way.

Funds for conducting this research are provided by National Human Genome Research Institute (NHGRI) of the National Institutes of Health (NIH).

LENGTH OF TIME AND NUMBER OF PEOPLE EXPECTED TO PARTICIPATE

Your participation is expected to last about an hour, or as it takes for you to review the study details and this consent form with the study coordinator. If you decide to participate in the survey studies, and if you decide to participate in the whole study, both you and your child's direct participation will involve three study visits over the first nine months of this three-year study, and each visit will last about 1 to 2 hours.
The number of people expected to take part in this research study at Mount Sinai Health System is approximately 500, with another 600 participating at the Montefiore Medical Center for a total of 1100 participants.

DESCRIPTION OF WHAT'S INVOLVED:

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If you agree to permit your child's participation in this research study, the following information describes what may be involved.

The research team will contact you within 24 hours of visit(s) to conduct pre-visit screening for COVID-related symptoms using the most up-to-date MSHS Infectious Diseases Screening Tool.

You and your child will be asked to come alone and to wear a mask to the study visit. If you do not have one, one will be provided to you upon arrival by study staff.

All hospital/departmental/clinic rules regarding COVID-19 prevention will be followed once you arrive on-site, including but not limited to pre-visit screening at an established ambulatory practice area, wearing a mask at all times, etc.

The study team has put in place several procedures to minimize exposure to Covid-19, including using masks, eye shields, and gloves and practicing social distancing. Study staff screen for Covid-related symptoms daily before their work shift begins to ensure they are fit to engage in person with study participants. The study staff will try to minimize the time you need to be on site to complete a study visit, and will complete as many study procedures as possible via telehealth.

Survey
You will be asked to complete an hour-long survey with the study coordinator. This survey will ask you about your past experiences with genetic testing, your understanding and expectations for participating in this study, and some background questions about you and your child. We will also ask some questions about your experiences with the healthcare systems and the level of support and care your child needs.

Random assignment
The study treatment you will get was chosen by chance, like flipping a coin. You had an equal chance of being given each study treatment, either a standard-of-care (generally accepted pre-test counseling and post-test return of results guidelines and procedures experts in this field agree are appropriate) genetic counseling group or a genetic counseling group that uses a special Communication Tool that we are developing to help us better explain complicated genetic testing results to families. Your random assignment to either group was programmed **before** your first study visit, so we can schedule you with the appropriate genetic counselor. Neither you, your child, nor the study doctor is able to choose what study treatment you get.

Scheduling first visit
You will then be given an appointment to have your first study visit with the assigned study genetic counselor, at which time you will review the informed consent for the rest of the study, receive genetic counseling, and have blood taken. Two tubes of blood will be drawn from your child (8 mL = 1.6

teaspoons) and from each parent (12 mL = 2.4 teaspoons). If a blood sample is not possible, we will collect a saliva sample.

RESPONSIBILITIES FOR PARTICIPATING IN THIS RESEARCH:

If you decide to permit your child to take part in this research study, you would be responsible for the following things:

- Reviewing and signing this informed consent document.
- Answering questions in the initial survey
- Completing an initial genetic counseling visit, which includes providing a blood or saliva sample.

COSTS OR PAYMENTS THAT MAY RESULT FROM PARTICIPATION:

If your family agrees to take part in this research study, we will pay you a $20 gift card for your time and effort. You will receive this $20 gift card after you complete your first study visit, which includes this initial survey and your genetic counseling visit.

If your family decides to participate in the full study, you will receive a total of **$80** ($20, $20 and $40) for completing all three study visits. If your family chooses to withdraw from the study before all visits are completed, you will be paid for the visits you completed.
Some researchers may develop tests, treatments or products that are worth money. You will not receive payment of any kind for your specimens and information or for any tests, treatments, products or other things of value that may result from the research.

Tax law may require the Mount Sinai Finance Department to report the amount of payment you receive from Mount Sinai to the Internal Revenue Service (IRS) or other agencies, as applicable. Generally this reporting would take place if you receive payments that equal $600 or more from Mount Sinai in a calendar year. You would be responsible for the payment of any tax that may be due.

POSSIBLE BENEFITS:

It is important to know that your child may not get any benefit from taking part in this research. Others may not benefit either. However, possible benefits may be the information you provide may contribute to greater understanding of children like your own, whose conditions are difficult to diagnose and

treat. Your answers will help us learn how we can best communicate information about genomic testing to parents and caregivers when their children undergo similar testing.

REASONABLY FORESEEABLE RISKS AND DISCOMFORTS:

- **Risks related to answering questionnaires:** You may feel uncomfortable answering questions about your knowledge and understanding of genetic testing. You can choose not to answer questions that make you feel uncomfortable.
- **Risks related to randomization:** We cannot think of any risks specifically related to participation in either the routine or GUIA arm. This is important as this randomization will take place prior to you consenting to the study.
- **Risk of loss of private information:** this risk always exists, but there are procedures in place to minimize the risk.
- In addition to what is described above, there may be unforeseeable risks that occur as a result of genome sequencing and its clinical interpretation and this will be reviewed in detail at your first study visit.

There is a Federal law called the Genetic Information Nondiscrimination Act (GINA). In general, this law makes it illegal for health insurance companies, group health plans, and most employers of over 15 people to discriminate against your child based on genetic information. However, it does not protect your child against discrimination by companies that sell life insurance, disability insurance, or long-term care insurance.

OTHER POSSIBLE OPTIONS TO CONSIDER:

You may decide not to permit your child to take part in this research study without any penalty. The choice is totally up to you.

IN CASE OF INJURY DURING THIS RESEARCH STUDY:

If you believe that your child has suffered an injury related to this research as a participant in this study, you should contact the Principal Investigator, Dr. Eimear Kenny.

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ENDING PARTICIPATION IN THE RESEARCH STUDY:

You may decide to stop your child's participation in this research study at any time without any penalty. This will not affect your child's ability to receive medical care at any of the Mount Sinai Health System hospitals or at your private practice doctor, or to receive any benefits to which you, or your child, are otherwise entitled.

You may also withdraw your permission for the use and disclosure of any of your child's protected information for research, but you must do so in writing to the Principal Investigator at the address on the first page. Even if you withdraw your permission, the Principal Investigator for the research study may still use the information that was already collected if that information is necessary to complete the research study. Your health information may still be used or shared after you withdraw your authorization if you have an adverse event (a bad effect) from participating in the research study.

Withdrawal without your consent: The study doctor, the sponsor or the institution may stop your involvement in this research study at any time without your consent. This may be because the research study is being stopped, the instructions of the study team have not been followed, the investigator believes it is in your best interest, or for any other reason. If specimens or data have been stored as part of the research study, they too can be destroyed without your consent.

CONTACT PERSON(S):

If you have any questions, concerns, or complaints at any time about this research, or you think the research has hurt you, please contact the office of the research team and/or the Principal Investigator at phone number (212) 241-8288.

This research has been reviewed and approved by an Institutional Review Board. You may reach a representative of the Program for Protection of Human Subjects at the Icahn School of Medicine at Mount Sinai at telephone number (212) 824-8200 during standard work hours for any of the reasons listed below. This office will direct your call to the right person within the Mount Sinai Health System:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You are not comfortable talking to the research team.
- You have questions about your rights as a research subject.
- You want to get information or provide input about this research.

DISCLOSURE OF FINANCIAL INTERESTS:

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Sometimes, physicians/researchers receive payments for consulting or similar work performed for industry. Effective September 2014 Mount Sinai reviews only payments to an individual totaling more than $5,000 a year per entity when determining potential conflicts of interest. If you have questions regarding industry relationships, we encourage you to talk your physician/researcher or visit our website at http://icahn.mssm.edu/ where Mount Sinai publicly discloses the industry relationships of our faculty.

Dr. George Diaz and Randi Zinberg (Co-Investigators in this study) receive financial compensation as consultants for Sema4 (Some of the genetic testing that will be done for subjects as part of this study will be done by Sema4).

Sema4 is a company that is currently majority owned by the Icahn School of Medicine at Mount Sinai; many of Sema4's employees also have an equity interest in the company; the company integrates genetic testing and data analytics to improve diagnosis, treatment and prevention of disease. Sema4, Sema4 employees and the Icahn School of Medicine at Mount Sinai could benefit from the operation of the research repository.

MAINTAINING CONFIDENTIALITY – HIPAA AUTHORIZATION:

As you take part in this research project it will be necessary for the research team and others to use and share some of your child's private protected health information. Consistent with the federal Health Insurance Portability and Accountability Act (HIPAA), we are asking your permission to receive, use and share that information.

What protected health information is collected and used in this study, and might also be disclosed (shared) with others?

As part of this research project, the research team at the hospital(s) involved in the research will collect your child's name, address, telephone numbers, date of birth, and medical record number.

The researchers will also get information from your child's Mount Sinai electronic medical record.

During the study the researchers will gather information by:

- completing an initial survey with you
- reviewing your child's electronic medical record to retrieve information about your diagnosis, date of diagnosis, date of genetic test(s), type of genetic test(s), results of genetic test(s), when and where results were delivered to you and by whom, who else was in the room when results were returned and notes of the genetic counselor about the session.

Why is your protected health information being used?

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Your personal contact information is important to be able to contact you during the study. Your child's health information and the results of any tests and procedures being collected as part of this research study will be used for the purpose of this study as explained earlier in this consent form. The results of this study could be published or presented at scientific meetings, lectures, or other events, but would not include any information that would let others know who you are, unless you give separate permission to do so.

The research team and other authorized members of The Mount Sinai Health System ("Mount Sinai") workforce may use and share your child's information to ensure that the research meets legal, institutional or accreditation requirements. For example, the School's Program for the Protection of Human Subjects is responsible for overseeing research on human subjects, and may need to see your information. If you receive any payments for taking part in this study, the Mount Sinai Finance Department may need your name, address, social security number, payment amount, and related information for tax reporting purposes. If the research team uncovers abuse, neglect, or reportable diseases, this information may be disclosed to appropriate authorities.

Who, outside Mount Sinai, might receive your child's protected health information?

As part of the study, the Principal Investigator, study team and others in the Mount Sinai workforce may disclose your child's protected health information, including the results of the research study tests and procedures, to the following people or organizations: (It is possible that there may be changes to the list during this research study; you may request an up-to-date list at any time by contacting the Principal Investigator.)

- Other collaborating research center(s) and their associated research/clinical staff who are working with the investigators on this project: The National Institutes of Health, the Clinical Sequencing Evidence-Generating Research Consortium, Albert Einstein College of Medicine/Montefiore Medical Center, Sema4, and the New York Genome Center
- Researchers and other individuals who work with the researchers
- The sponsoring government agency and/or their representative who need to confirm the accuracy of the results submitted to the government or the use of government funds: National Human Genome Research Institute (NHGRI) and the National Institutes of Health (NIH).
- The United States Department of Health and Human Services and the Office of Human Research Protection.

In almost all disclosures outside of Mount Sinai, your child will not be identified by name, social security number, address, telephone number, or any other direct personal identifier. Some records and information disclosed may be identified with a unique code number. The Principal Investigator will

ensure that the key to the code will be kept in a locked file, or will be securely stored electronically. The code will not be used to link the information back to you without your permission, unless the Institutional Review Board allows it after determining that there would be minimal risk to your privacy. The Certificate of Confidentiality obtained from the Department of Health and Human Services will not be used to prevent disclosure to local authorities of child abuse and neglect, or harm to self or others. It is possible that a sponsor or their representatives, a data coordinating office, or a contract research organization, will come to inspect your records. Even if those records are identifiable when inspected, the information leaving the institution will be stripped of direct identifiers. Additionally, the Office of Human Subjects Protection (OHRP) of the Department of Health and Human Services as well as the Food and Drug Administration (FDA) will be granted direct access to your medical records for verification of the research procedures and data. They are authorized to remove information with identifiers if necessary to complete their task. By signing this document you are authorizing this access. We may publish the results of this research. However, we will keep your name and other identifying information confidential.

For how long will Mount Sinai be able to use or disclose your protected health information?

Your authorization for use of your child's protected health information for this specific study does not expire.

Will you be able to access your records?

During your participation in this study, you will have access to your child's medical record and any study information that is part of that record. The investigator is not required to release to you research information that is not part of your/your child's medical record.

Do you need to give us permission to obtain, use or share your health information?

NO! If you decide not to let us obtain, use or share your/your child's health information you should not sign this form, and you will not be allowed to volunteer in the research study. If you do not sign, it will not affect your/your child's treatment, payment or enrollment in any health plans or affect his/her or your eligibility for benefits.

Can you change your mind?

You may withdraw your permission for the use and disclosure of any of your child's protected information for research, but you must do so in writing to the Principal Investigator at the address on the first page. Even if you withdraw your permission, the Principal Investigator for the research study may still use your child's protected information that was already collected if that information is necessary to complete the study. Your child's health information may still be used or shared after you withdraw your authorization if you should have an adverse event (a bad effect) from being in the study. If you withdraw your permission to use your child's protected health information for research that means you will also be withdrawn from the research study, but standard medical care and any

other benefits to which you are entitled will not be affected. You can also tell us you want to withdraw from the research study at any time without canceling the Authorization to use your data.

It is important for you to understand that once information is disclosed to others outside Mount Sinai, the information may be re-disclosed and will no longer be covered by the federal privacy protection regulations. However, even if your information will no longer be protected by federal regulations, where possible, Mount Sinai has entered into agreements with those who will receive your information to continue to protect your confidentiality.

If as part of this research project your child's medical records are being reviewed, or a medical history is being taken, it is possible that HIV-related information may be revealed to the researchers. If that is the case, the following information concerns your child. If this research does not involve any review of medical records or questions about your medical history or conditions, then the following section may be ignored.

Notice Concerning HIV-Related Information

If you are authorizing the release of HIV-related information, you should be aware that the recipient(s) is (are) prohibited from re-disclosing any HIV-related information without your authorization unless permitted to do so under federal or state law. You also have a right to request a list of people who may receive or use your HIV-related information without authorization. If you experience discrimination because of the release or disclosure of HIV-related information, you may contact the New York State Division of Human Rights at (888) 392-3644 or the New York City Commission on Human Rights at (212) 306-5070. These agencies are responsible for protecting your rights.

Certificate of Confidentiality: To further protect your privacy, the researchers have obtained a Certificate of Confidentiality from the Department of Health and Human Services. This is intended to ensure that your identity as a participant in this research study will not have to be disclosed as a result from a subpoena, for the purpose of identifying you in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings other than to the FDA or OHRP as identified above.

The research staff will not share any of your research information or biospecimens with anyone who is not a member of the research team, including any family members or friends, other than to those identified above. However, you should know that if we learn that you or someone else is threatened with serious harm, such as a child or an elderly person being abused, the investigators may notify the appropriate authorities if necessary to protect you or others. A Certificate of Confidentiality does not prevent you or a member of your family from voluntarily releasing information about yourself or your

involvement in this research. This means that you and your family must also actively protect your own privacy. If an insurer or employer learns about your research participation, and you agree that they can have your research information, then the researchers may not use the Certificate of Confidentiality to keep this information from them.

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Signature Block for Capable Adult

Your signature below documents your permission to take part in this research and to the use and disclosure of your protected health information. A signed and dated copy will be given to you.

DO NOT SIGN THIS FORM AFTER THIS DATE →

Signature of subject	Date
Printed name of subject	Time [required if used for FDA documentation purposes]

Person Explaining Study and Obtaining Consent

Signature of person obtaining consent	Date
Printed name of person obtaining consent	Time

Witness Section: For use when a witness is required to observe the consent process,, document below (for example, subject is illiterate or visually impaired, or this accompanies a short form consent):

My signature below documents that the information in the consent document and any other written information was accurately explained to, and apparently understood by, the subject, and that consent was freely given by the subject.

Signature of witness to consent process	*Date*
Printed name of person witnessing consent process	Time

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