Yale HIC# 1604017628

COMPOUND AUTHORIZATION AND CONSENT FOR PARTICIPATION IN A RESEARCH STUDY

Yale University School of Medicine
The Low Grade Glioma Registry
OPTIMUM Participants

Study Title: **OPT**im**I**zing engage**M**ent in discovery of molecular evol**u**tion of low grade glio**m**a" (**OPTIMUM**)
Principal Investigator : Elizabeth B. Claus, MD, PhD
Phone Number: 203-785-6415

Invitation to Participate and Description of this Research Project

You are being asked to provide consent to participate in a research study looking at glioma. Taking part in this study is your choice. You can choose to take part, or you can choose not to take part in this study. You also can change your mind at any time.

- **Why is this study being offered to me?**

You have been asked to take part in this study because you have been diagnosed with a glioma and you have had two or more surgeries to treat your glioma.

- **What is this study about?**

Little is known about low grade glioma (LGG), a slow growing tumor of the brain. To increase knowledge about this relatively rare diagnosis we are asking adults initially diagnosed with LGG and who have had two or more surgeries for their glioma to join this study to discover why some people develop glioma while other people do not.

Genetic information can lead to a better understanding of glioma risk as well as improved selection of treatment for glioma patients. Genes often contain small changes. Sometimes these changes do not cause any problems, but sometimes these changes are more serious and can interfere with the way the gene is supposed to work. In this study we wish to study inherited genetic changes to determine whether there is any relationship between such changes and glioma risk. In addition, we wish to study genetic and molecular characteristics of glioma tumors to determine whether we can better predict patients' response to treatment. To do so we will perform genetic sequencing on your blood/saliva and tumor samples.

In addition to studying genetics, we also want to better understand the any symptoms or challenges associated with glioma. Participants will be asked to complete online surveys and provide data from "wearables" (if available) to collect and track common symptoms of treatment including fatigue and reduction in physical activity. We estimate that approximately 500 persons will participate in this study.

To decide whether you wish to be a part of this research study you should know about its risks and benefits. This consent form gives you detailed information about the study and will go over all aspects of this research: its purpose, the procedures that will be performed, and any risks or benefits associated with the study. Once you understand the study, you will be asked if you wish to participate; if so, you will be asked to sign this form.

What are you asking me to do and how long will it take?

The study has several parts.

- In the first part of the study we ask for permission to use our technology platform Hugo (https://hugo.health/) to collect data from you. You can access the platform on your mobile phone or other devices that connect to the internet. Hugo is able to collect data from multiple sources including your hospital medical record, pharmacy, and

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any "wearables" such as smartphones and Fitbits and then stores them in your own secure cloud-based account. You may opt to share that data with the researchers in this study. You will have control over which data sources you connect to Hugo and will have the option to turn off any data sharing at any time. The set-up process for this takes from 15 to 60 minutes depending on the data you wish to allow Hugo to collect. If you do not wish to use Hugo or Hugo is not able to access your medical record data, we will collect your medical records by contacting your health care institutions and obtaining your records for review.

- Participation in the second part of the study is completion of an online questionnaire. The questionnaire will take about 30 minutes to complete and will ask you for information on your glioma treatment as well as other aspects of your medical history.

- The third part of the study will attempt to examine whether variations in inherited and tumor genes are associated with glioma and with response to treatment. To examine inherited genes, we will ask you to donate one blood sample for whole exome and whole genome sequencing for this research. The blood sample is collected via a kit that we will mail to you and that you can bring to your healthcare provider or a local blood draw laboratory to have them draw your blood. If you prefer, we will arrange for a phlebotomist to come to your home to draw your blood. We will draw 40 ml (about eight teaspoons) of blood for analysis. The blood draw should take about 15-30 minutes. If a blood sample is unable to be obtained, we will ask you to donate either a blood spot sample or a saliva sample. The blood spot sample is self-administered and performed by pricking your finger and then pressing your finger to a piece of paper that collects a blood drop. The saliva sample (which consists of spitting into a cup) is collected via a kit that we would mail to you and that you would then mail back to us when you have completed the collection. To examine tumor genes, we will retrieve stored tissue specimens from all of your glioma surgeries. In addition to the current study, we anticipate that future medical discoveries will suggest additional genes that may be associated with medical conditions. If you allow us, we would like to store any remaining blood/saliva and tumor specimens so that we may perform tests in the future that would be related to medical research. Note that only excess tissue will be obtained from the pathology department.

- Finally, we ask permission to re-contact you with invitations to participate in activities being offered by our study or the Hugo community, for example a short survey of diet or exercise among glioma patients. If yes, we will text or email you when new opportunities are available. You may choose or not chose to participate in these opportunities. Participation will involve approximately 60 minutes of your time per year over the next 4-5 years.

What are the potential risks to the study?

Blood Specimen: There are no unusual risks involved in having blood drawn/blood spot collected. The process may include pain, bruising, and bleeding, or lead to an infection at the site of the needle stick (although infection is a rare complication).

Saliva Specimen: There are no unusual risks involved in having saliva cells obtained.

Genetic testing: Under some circumstances, it can be a risk for genetic information to be known by the subject or others. Variation in some genes is known to be directly related to risk of certain illnesses. In some cases, knowledge of genetic information could have negative psychological consequences or could affect access to or retention of certain benefits or entitlements. For example, the information could potentially be used against you if it were revealed to insurance companies or potential employers. We will take precautions to ensure that confidentiality is maintained, and that genetic information is not unintentionally disclosed to inappropriate third parties. 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, except those with less than 15 employees, to discriminate against you based on your genetic information. However, it does not protect you against discrimination by companies that sell life insurance, disability insurance, or long-term care insurance. We will use your specimens and information for research only. We will not sell them. It is possible that the research will lead to development of products that will be sold for profit. If this happens, there is no plan to share any financial gain with you. We will not return research results to you or your doctor. If

we publish the research results, we will not include your name or any other personal information.

Your genes (DNA) tell you about you as well as the people who are related to you by blood. If you have a certain DNA change, your blood relatives might have it too. They may or may not want to know this information. You may realize you are not related to some family members in the way you thought you were.

How can the study possibly benefit me?

You may not receive any direct benefit from allowing your information to be stored and used.

Hugo Health is a patient-centric health platform that provides the means for you to access your health information from across the health system and secure them in your own cloud-based account. Your Hugo account enables you to link health-related data sources and to gather your electronic health records, pharmacy data, and wearable data in one place.

Results from your genetic testing from the OPTIMUM study are research results and are not the same as medical testing However, it is possible that genetic testing of your samples may identify findings that may be medically important and therefore, if you wish, these results will be returned to you. As this is a multi-year study, it may take several years to receive these results. If you want, we can also send your results to your health care provider.

How can the study possibly benefit other people?

We hope that the information we learn will increase our knowledge of glioma and that this information will lead to better treatments in the future.

Who is paying for the study?

Funding for this project has been received from the National Cancer Institutes (NCI) as part of an initiative called "Patient Engagement and Cancer Genome Sequencing (PE-CGS) Centers. Our study group has been named as a PE-CGS Center and includes researchers from Yale University, The Jackson Laboratory, The University of Colorado, Brigham and Women's Hospital, and Beth Israel Deaconess Medical Center. The title of our project is called "**OPT**im**I**zing engage**M**ent in discovery of molecular evol**u**tion of low grade glio**m**a" or **OPTIMUM**.

Are there any costs to participation?

There are no postage costs to you if you send this consent via the secure Yale email glioma@yale.edu or sign the consent electronically on the Hugo website. If you decide to send this consent or any other study materials via mail you will need to obtain a stamped envelope to return the consent to Dr. Elizabeth B. Claus, School of Public Health, Yale University, 60 College Street, New Haven, CT 06520-8034.

If you choose to receive and share your genetic blood/saliva or tumor sequencing research test results with your health care provider, your provider may decide to confirm your OPTIMUM results with medical testing and genetic counseling. Costs related to any medical testing or counseling will be billed to you or your health insurance company by the provider.

Transmitting data collected in this study may count against your existing mobile data plan. You may configure the application to only use WiFi connections to limit the impact this data collection has on your data plan.

What Information will you collect about me in this study?

The information we are asking to use and share is called "Protected Health Information." It is protected by a federal law called the Privacy Rule of the Health Insurance Portability and Accountability Act (HIPAA). In general, we cannot use or share your health information for research without your permission. If you want, we can give you more information about the Privacy Rule. Also, if you have any questions about the Privacy Rule and your rights, you can speak to Yale Privacy

Officer at 203-432-5919.

Confidentiality

Results will not be given to your family members or any third party, other than the healthcare provider that you indicate at the end of this form if you choose to do so. We will not enter your results into your medical record. The data collected in your Hugo account, including data from any portals you connect and responses to any questionnaires you complete, will not be transferred back to your medical record.

The Hugo platform takes extensive precautions, including industry-standard encryption, to minimize privacy and security risks to your personally identifiable information. Hugo has a strict policy regarding user data: your data will never move off the Hugo platform unless you provide explicit permission. To learn more about Hugo's commitment to the security and privacy of your data, you can visit the following links: Security Statement (https://hugo.health/security), Privacy Center (https://hugo.health/privacy-center) Terms of Service (https://hugo.health/terms-of-service/). All blood/saliva and tumor specimens and results of the genetic analyses will be identified only by study ID number. Your name and other facts that might identify you will not appear when we present this study or publish its results. All staff members will be informed prior to employment and at regular intervals as to the necessity for keeping all data confidential.

Genomic Data Sharing

The goal of genetic studies is to speed up new medical discoveries and treatments by making it easier for researchers to share this information with each other. For example, genetic data may be used to find out:

- Who is more likely to develop a certain illness, such as cancer, or a condition like high blood pressure;
- What genes affect the progress of a certain disease or condition; and
- What genes may affect treatments which now may or may not work in certain people.

We will give your genetic and other information about you, such as your medical conditions, to the National Institutes of Health NIH database of Genotypes and Phenotypes (**dbGaP**). It will be coded and your name and other information that could identify you will be removed. The NIH repositories store genetic information and individual characteristics about people, like sex, age, medical conditions from people participating in many studies across the country. NIH will not identify or make any attempt to identify information as coming from you or any other individual. NIH will share the collected information with researchers who submit applications to NIH to do research with information from the repository. Special data sharing committees will review those applications and decide whether to share the information with the researcher. The researchers who receive your information must promise to keep it confidential and to use it only for the research purpose approved by NIH.

Privacy

We are committed to protecting your privacy but we are ethically obligated to disclose your identity in some cases. For example, researchers must report information about suspected or known sexual, physical, or other abuse of a child or older person, or a subject's threats of violence to self or others. If any member of the research team is given such information, she or he will make a report to the appropriate authorities.

This research is covered by a Certificate of Confidentiality from the National Institutes of Health. The researchers with this Certificate may not disclose or use information, documents, or biospecimens that may identify you in any federal, state, or local civil, criminal, administrative, legislative, or other action, suit, or proceeding, or be used as evidence, for example, if there is a court subpoena, unless you have consented for this use. Information, documents, or biospecimens protected by this Certificate cannot be disclosed to anyone else who is not connected with the research except, if there is a federal, state, or local law that requires disclosure (such as to report child abuse or communicable diseases but not for federal, state, or local civil, criminal, administrative, legislative, or other proceedings, see below); if you have consented to the disclosure, including for your medical treatment; or if it is used for other scientific research, as allowed by federal regulations protecting research subjects.

The Certificate cannot be used to refuse a request for information from personnel of the United States federal or state government agency sponsoring the project that is needed for auditing or program evaluation by NCI which is funding this project or for information that must be disclosed in order to meet the requirements of the federal Food and Drug Administration (FDA). You should understand that a Certificate of Confidentiality does not prevent you from voluntarily releasing information about yourself or your involvement in this research. If you want your research information released to an insurer, medical care provider, or any other person not connected with the research, you must provide consent to allow the researchers to release it.

The Certificate of Confidentiality will not be used to prevent disclosure as required by federal, state, or local law such as child abuse and neglect, or harm to self or others.

How will you use and share my information?

We will use your information to conduct the study described in this consent form. The information that may be used or disclosed includes the following: your name and other identifying and contact information, your completed questionnaires/surveys and your and medical record data. The medical record data being used will be what is available electronically via the patient portal and may include Medications, Problems, Allergies, Procedures, Encounters, Lab Results, Diagnoses, Vital Signs, Immunizations, and possibly other data that becomes available.
We may share your information with:

- The U.S. Department of Health and Human Services (DHHS) agencies
- Representatives from Yale University, the Yale Human Research Protection Program and the Institutional Review Board (the committee that reviews, approves, and monitors research on human participants), who are responsible for ensuring research compliance. These individuals are required to keep all information confidential.
- The healthcare provider that you designate to receive research tumor and/or blood genetic results.
- Laboratories and other individuals and organizations that analyze your health information in connection with this study, according to the study plan.
- Co-Investigators and other investigators at Yale and other study institutions.
- Study Coordinator and Members of the Research Team
- Data and Safety Monitoring Boards or others authorized to monitor the conduct of the Study

We will do our best to make sure your information stays private. But, if we share information with people who do not have to follow the Privacy Rule, your information will no longer be protected by the Privacy Rule. Let us know if you have questions about this. However, to better protect your health information, agreements are in place with these individuals and/or companies that require that they keep your information confidential.

What if I change my mind or want to end participation before the study is over?

The authorization to use and disclose your health information collected during your participation in this study will never expire. However, you can change your mind about participating in the study at any time and you may withdraw or take away your permission at any time. You may withdraw your permission by telling the study staff at ***203-785-6415*** or by writing to Dr. Elizabeth B. Claus at the Yale School of Public Health, 60 College Street, New Haven, CT 06520.

If you withdraw your permission, you will not be able to stay in this study but the care you get from your doctor outside this study will not change. No new health information identifying you will be gathered after the date you withdraw. Information that has already been collected may still be used and given to others until the end of the research study to insure the integrity of the study and/or study oversight. If you decide to withdraw, your sample will not be destroyed; instead all identifying information will be removed and it will be studied anonymously. If you do not wish your sample to remain in the study you should not participate. If you wish to delete your Hugo account at any time you can contact Hugo Support (support@hugo.health).

When the study ends, you have 3 options regarding your Hugo account:

1. Keep your Hugo account active and data will continue to stream from connected portals.

2. Keep your Hugo account but disconnect the portal connections. You can continue to access your Hugo account whenever you choose, however, disconnecting your portals will stop information being delivered. If you reconnect your portals, the data will again stream into your account.
3. Terminate your Hugo account by notifying Hugo at support@hugo.health. As outlined in the Hugo Terms of Service, accounts will be removed within 30 days.

Authorization and Permission

I have read (or someone has read to me) this form and have decided to participate in the project described above. Its general purposes, the particulars of my involvement and possible hazards and inconveniences have been explained to my satisfaction. My signature also indicates that I have received a copy of this consent form.

By signing this form, I give permission to the researchers to use [and give out] information about me for the purposes described in this form. By refusing to give permission, I understand that I will not be able to be in this research.

Return of results (Check all that apply)

_____ I wish to receive a copy of the analysis of my tumor sample

_____ I wish to receive a copy of the analysis of my blood/saliva sample.

_____ I wish that the health care provider named below also receive a copy of my tumor and blood/saliva genetic analyses.

Provider Name _____

Provider Practice Location_____

Provider Telephone Number_____

Name of Subject:_____Date of Birth _____

Permanent Address:_____

Email:_____

Signature:_____

Date:_____

If after you have signed this form you have any questions about your privacy rights, please contact the Yale Privacy Officer at 203/432-5919.

If you have further questions about this project or if you have a research-related problem, you may contact the Principal Investigator, Elizabeth B Claus, MD, PhD at 203-785-6415. If you would like to talk with someone other than the researchers to discuss problems, concerns, and questions you may have concerning this research, or to discuss your rights as a research subject, you may contact the Yale Human Investigation Committee at (203) 785-4688.