Consent Form

Title of Research Study: ***Impact of sugars on tobacco product toxicity and abuse liability***

Investigator Team Contact Information: ***Dorothy Hatsukami, PhD and Irina Stepanov, PhD***
For questions about research appointments, the research study, research results, or other concerns, call the study team at:

Investigator Name: Dorothy Hatsukami Investigator Departmental Affiliation: Masonic Cancer Center Phone Number: 612-626-2121 Email Address: hatsu001@umn.edu	Study Staff: Nyadak Jock Phone Number: 612-625-1294 Email Address: jockx003@umn.edu
Investigator Name: Irina Stepanov Investigator Departmental Affiliation: Masonic Cancer Center Phone Number: 612-624-4998 Email Address: stepa011@umn.edu	

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Key Information About This Research Study

The following is a short summary to help you decide whether or not to be a part of this research study. More detailed information is listed later on in this form.

What is research?

Doctors and investigators are committed to your care and safety. There are important differences between research and treatment plans:

- The goal of research is to learn new things in order to help groups of people in the future. Investigators learn things by following the same plan with a number of participants, so they do not usually make changes to the plan for individual research participants. You, as an individual, may or may not be helped by volunteering for a research study.
- The goal of clinical care is to help you get better or to improve your quality of life. Doctors can make changes to your clinical care plan as needed.

Why am I being asked to take part in this research study?

We are asking you to take part in this research study because you are an adult smoker.

What should I know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

Why is this research being done?

The purpose of this study is to better understand how varying levels of common sugars found in cigarettes affect how you smoke the cigarette and your responses to them.

How long will the research last?

We expect that you will be in this research study for a maximum of one month.

What will I need to do to participate?

After today's visit, you will be asked to attend four (4) half-day long (~3 hours) laboratory sessions, during which two (2) cigarettes will be smoked, assessments will be made and biological samples will be collected. In the first session you will smoke your usual brand cigarettes. In the next three sessions, you will be asked to smoke one of three study cigarettes with varying sugar content.

More detailed information about the study procedures can be found under ***"What happens if I say yes, I want to be in this research?"***

Is there any way that being in this study could be bad for me?

In this study, we will be adding varying levels of sugar to a commercially available cigarette. The levels of sugar that will be added to the cigarettes will be no higher than those found in popular cigarette brands.

Therefore, when you use the study cigarettes we provide, there will be no additional risk compared to your usual cigarette brand. If you are concerned about your tobacco use, speak to the study coordinator about referrals for quitting.

Other risks include:

Survey Questionnaires. The interviews will include questions about medical history, drug and alcohol use, and questionnaires about mood. Answering these personal questions could make you feel uncomfortable.

Confidentiality. There is a risk of breach of confidentiality or a loss of privacy if other people find out about your participation. All efforts are made to keep your information confidential, but confidentiality is not absolute.

Will being in this study help me in any way?

There are no benefits to you from your taking part in this research. We cannot promise any benefits to others from your taking part in this research. The information that we get from the study may ultimately help the Food and Drug Administration decide how best to regulate tobacco products with the goal of improving public health.

What happens if I do not want to be in this research?

There are no known alternatives, other than deciding not to participate in this research study.

Detailed Information About This Research Study

The following is more detailed information about this study in addition to the information listed above.

How many people will be studied?

We expect about 30 people to be in this research study.

What happens if I say "*Yes, I want to be in this research*"?

Screening visit. First, we will determine if you are eligible for our study. At this visit, you will complete several forms regarding your history of tobacco use, health, and use of medications. If you are eligible and agree to participate, you will be invited back to the clinic for a baseline study visit.

*Baseline visit. At this visit w*e will collect vital signs and ask you to blow into a small machine to confirm you smoke. Oral cells and urine will be collected. If you are a woman, we may also perform a urine pregnancy test to determine if you are pregnant. If the test shows you are pregnant, you will not be able to be in the study. Additionally, we will ask you to show us a pack of your usual brand cigarette, and we may take a picture of it. We will teach you how to use the database that will record your tobacco and marijuana use (if applicable). We will ask you to keep track of this each day for the remainder of the study.

Baseline period. This period will last for one week. During this time, we will ask you to keep track of your tobacco and marijuana use. At the end of this one-week period, we will ask you to return to the clinic for a 3-hour long visit. Prior to coming in for this visit you must abstain from smoking for at least 12 hours. During this visit you will smoke your usual brand cigarette. We will assess your vital signs and ask that

you blow into a small machine to measure your smoking level by examining your exhaled carbon monoxide. In order to proceed in the study, your carbon monoxide level needs to be 10 parts per million less. After a 30-minute rest period, we will have you complete a questionnaire, collect your smoking level again and ask you to smoke your usual brand cigarette in a regimented manner. Five minutes after extinguishing the cigarette, another measurement of smoking level will be taken and we will ask you to complete several questionnaires that measure your responses to the cigarette. We will collect your cigarette butt to analyze for nicotine. We will wait one-hour before smoking the next cigarette. During this waiting time you will be allowed to read magazines, listen to neutral podcasts, or watch neutral videos. After this time period, we will ask you to blow into the machine that measures your carbon monoxide levels and smoke your usual brand cigarette as you normally would within a 10-minute timeframe. We will perform the same testing procedures as after smoking the first cigarette. We will ask you additional questionnaires at various time points after your second cigarette and then we will ask you to rinse your mouth and oral cells will be collected.

Study sessions. In the next three sessions, we will ask you to smoke study cigarettes that will have varying levels of sugars in them. We will perform the same study procedures as we did in the usual brand session. Each session must be separated by at least 48 hours but no more than 5 days.

What are my responsibilities if I take part in this research?

If you take part in this research, you will be responsible to follow the study requirements as outlined above and as instructed by the study staff.

What happens if I say "Yes", but I change my mind later?

If you take part in this research study, and want to leave, you should tell us. Your choice not to be in this study will not negatively affect your right to any present or future medical care.

We will make sure that you stop the study safely. We will also talk to you about follow-up care, if needed.

If you stop being in the research, information about you that has already been collected may not be removed from the study database.

What are the risks of being in this study? Is there any way being in this study could be bad for me? (Detailed Risks)

Smoking or using study products

The risk of using study cigarettes during your participation in the study is identical to the risk you expose yourself to when you regularly use your usual cigarettes. For more information about the harmful effects of tobacco use and the benefits of quitting, please visit the Centers for Disease Control and Prevention (CDC) website: http://www.cdc.gov/tobacco/, the National Cancer Institute's website: www.smokefree.gov or call the National Cancer Institute's Smoking Quitline: 1-877-44U-QUIT. If you are concerned about your tobacco use, speak to the study coordinator about referrals for quitting.

Study procedures

This study will include questions about your medical history and drug and alcohol use. Answering these personal questions could make you uncomfortable. You may choose not to answer any questions that make you feel uncomfortable. While measuring blood pressure, the cuff may cause minimal discomfort.

In obtaining your blood pressure we may find that you have abnormal blood pressure and/or heart rate.

Breach of confidentiality
There is a risk of breach of confidentiality or a loss of privacy if other people find out about your participation. All efforts are made to keep your information confidential, but confidentiality is not absolute.

What do I need to know about reproductive health and/or sexual activity if I am in this study?

Tobacco use during pregnancy can lead to miscarriage, preterm delivery, stillbirth, low birth weight, problems with the placenta, birth defects such as cleft palate, sudden infant death syndrome (SIDS), and early childhood behavioral problems.

You should not be or become pregnant and/or breastfeed while on this research study.

If you are sexually active, both men and women should use at least one effective means of birth control while participating in this research study. According to the World Health Organization and the United States Center for Disease Control and Prevention, the most effective forms of birth control include complete abstinence, surgical sterilization (both male and female), intrauterine devices (IUDs), and the contraceptive implant. The next most effective forms of birth control include injectables, oral contraceptive pills, the contraceptive ring, or the contraceptive patch. Acceptable, but least effective, methods of birth control include male condoms (with or without spermicide) and female condoms.

If you are considered to be postmenopausal, you are not required to use contraception while participating in this research study. Postmenopausal women rarely become pregnant.

If you become pregnant while participating in this research study, it is important that you tell the study doctor or other research team member immediately. You will be required to stop participation in this study. The licensed medical professional may want to follow pregnancy outcomes in the event of a pregnancy. Your permission will be obtained prior to seeking follow-up on any pregnancy outcomes.

Will it cost me anything to participate in this research study?

Taking part in this research study will not lead to any costs to you.

What happens to the information collected for the research?

Efforts will be made to limit the use and disclosure of your personal information, including research study and medical records, to people who have a need to review this information. We cannot promise complete confidentiality. Organizations that may inspect and copy your information include the Institutional Review Board (IRB), the committee that provides ethical and regulatory oversight of research, and other representatives of this institution, including those that have responsibilities for monitoring or ensuring compliance (such as the Quality Assurance Program of the Human Research Protection Program (HRPP)), the US Food and Drug Administration (FDA), the National Institute on Drug Abuse (NIDA), the Department of Health and Human Services and the National Institutes of Health and public health and safety authorities.

Certificate of Confidentiality

To help protect your privacy, the National Institutes of Health has granted a Certificate of Confidentiality. The researchers can use this Certificate legally to refuse to disclose information that may identify you in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings, for example, if there is a court subpoena. The researchers will use the Certificate to resist any demands for information that would identify you, except as explained below.

The Certificate does not prevent a researcher from reporting information learned in research when required by other state or federal laws, such as mandatory reports to local health authorities for abuse or neglect of children/vulnerable adults, or information to the Food and Drug Administration (FDA) when required in an FDA audit. However, the Certificate limits the researcher from disclosing such information in follow up civil, criminal, legislative or administrative legal proceedings if the information was created or compiled for purposes of the research.

You also should understand that 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. If an insurer, medical care provider, or other person obtains your written consent to receive research information, then the researchers will not use the Certificate to withhold that information.

Genetic Information
A federal law, called the Genetic Information Nondiscrimination Act (GINA), generally makes it illegal for health insurance companies, group health plans, and most employers to discriminate against you based on your genetic information. This law generally will protect you in the following ways:

- Health insurance companies and group health plans may not request your genetic information that we get from this research.
- Health insurance companies and group health plans may not use your genetic information when making decisions regarding your eligibility or premiums.
- Employers with 15 or more employees may not use your genetic information that we get from this research when making a decision to hire, promote, or fire you or when setting the terms of your employment.

Be aware that this federal law does not protect you against genetic discrimination by companies that sell life insurance, disability insurance, or long-term care insurance.

A description of this clinical trial will be available at 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.

Will I receive research test results?

NO
Most tests done on samples in research studies are only for research and have no clear meaning for health care. The investigator(s) will not contact you or share your individual test results.

What will be done with my data and specimens when this study is over?

We will use and may share data and/or specimens for future research. They may be shared with researchers/institutions outside of University of Minnesota. This could include for profit companies. We will not ask for your consent before using or sharing them. We will remove identifiers from your data and/or specimens, which means that nobody who works with them for future research will know

who you are. Therefore, you will not receive any results or financial benefit from future research done on your specimens or data.

Will anyone besides the study team be at my consent meeting?

You may be asked by the study team for your permission for an auditor to observe your consent meeting. Observing the consent meeting is one way that the University of Minnesota makes sure that your rights as a research participant are protected. The auditor is there to observe the consent meeting, which will be carried out by the people on the study team. The auditor will not document any personal (e.g. name, date of birth) or confidential information about you. The auditor will not observe your consent meeting without your permission ahead of time.

Whom do I contact if I have questions, concerns or feedback about my experience?

This research has been reviewed and approved by an IRB within the Human Research Protections Program (HRPP). To share feedback privately with the HRPP about your research experience, call the Research Participants' Advocate Line at 612-625-1650 (Toll Free: 1-888-224-8636) or go to z.umn.edu/participants. You are encouraged to contact the HRPP if:

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

Will I have a chance to provide feedback after the study is over?

The HRPP may ask you to complete a survey that asks about your experience as a research participant. You do not have to complete the survey if you do not want to. If you do choose to complete the survey, your responses will be anonymous.

If you are not asked to complete a survey, but you would like to share feedback, please contact the study team or the HRPP. See the "Investigator Contact Information" of this form for study team contact information and "Whom do I contact if I have questions, concerns or feedback about my experience?" of this form for HRPP contact information.

Can I be removed from the research?

The person in charge of the research study or the sponsor can remove you from the research study without your approval. Possible reasons for removal include physical or psychological health concerns or non-compliance with the research protocol.

We will tell you about any new information that may affect your health, welfare, or choice to stay in the research.

What happens if I am injured while participating in this research?

In the event that this research activity results in an injury, treatment will be available, including first aid, emergency treatment and follow-up care as needed. Care for such injuries will be billed in the ordinary manner, to you or your insurance company. If you think that you have suffered a research related injury let the study physicians know right away.

Will I be compensated for my participation?

If you agree to take part in this research study, you will be paid $25 for the screening and baseline visit

($10 for transportation reimbursement, $15 for the study visit). Eligible participants will be paid $75 for each of the clinic visits ($75 x 4 visits = $300). Additionally, you may earn up to an additional $5 each study visit based on a survey that you will complete. At the end of the study, you will receive a $75 bonus for completing all sessions. The maximum total amount you can be paid is $445.

Payment will be made using a pre-paid debit card called Greenphire ClinCard. It works like a bank debit card. We will give you a debit card and each time you receive a payment for participation in this study, the money will be added to the card after each completed visit.

You may use this card at any store that accepts MasterCard or you can use a bank machine to remove cash. However, there may be fees drawn against the balance of the card for cash withdrawals (ATM use) and inactivity (no use for 3 months). We will give you the ClinCard Frequently Asked Questions information sheet that answers common questions about the debit card. You will also receive letters with additional information on how you can use this card and who to call if you have any questions. Be sure to read these letters, including the cardholder agreement, for details about fees.

The debit card system is administered by an outside company. The company, Greenphire, will be given your name and social security number. They will use this information only as part of the payment system. Your information will not be used for any other purposes and will not be given or sold to any other company. Greenphire will not receive any information about your health status or the study in which you are participating.

Additionally, you will have the option to receive updates related to appointment reminders and payment reminders and updates via text message and email message (Standard text messaging rates will apply). You will have the opportunity to opt-in to receive these messages, you are not required to provide your cell phone or email address to be enrolled in the study or use a ClinCard. If you choose to receive messages and decide at a later date that you want to stop these messages, you will have the ability to opt-out. If you choose to receive any communications via texts or emails, you will be asked to sign a separate form.

Payment you receive as compensation for participation in research is considered taxable income. If payment to an individual equals or exceeds $600 in any one calendar year, the University of Minnesota is required to report this information to the Internal Revenue Service (IRS). Research payments to study participants that equal or exceed $600 during any calendar year will result in a FORM 1099 (Miscellaneous Income) being issued to you and a copy sent to the IRS.

Use of Identifiable Health Information

We are committed to respect your privacy and to keep your personal information confidential. When choosing to take part in this study, you are giving us the permission to use your personal health information that includes health information in your medical records and information that can identify you. For example, personal health information may include your name, address, phone number or social security number. Those persons who get your health information may not be required by Federal privacy laws (such as the 1099 Rule) to protect it. Some of those persons may be able to share your information with others without your separate permission. Please read the HIPAA Authorization form that we have provided and discussed.

How will my information be used in publications and presentations?

We may publish the results of this research in scientific, medical, academic or other journals or reports, or present the results at conferences. Information that makes it easy to identify you (such as your name and contact information, SSN and medical records number) will not be part of any publication or presentation. If you have an extremely unique or rare condition that is not shared by many others, it is possible that some people may be able to determine your identity even without these identifiers.

Optional Elements:

The following research activities are optional, meaning that you do not have to agree to them in order to participate in the research study. Please indicate your willingness to participate in these optional activities by placing your initials next to each activity.

Yes, I agree	**No, I disagree**	
_____	_____	The investigator may retain any leftover oral cells or urine samples taken during the study. These samples may be used for other research not related to this study. These samples will be retained in non-identifiable form, meaning that there will be no information associated with the oral cells or urine samples that will allow anyone to readily ascertain my identity.
_____	_____	I would like to receive reminders using Greenphire.
_____		The investigator may contact me in the future to see whether I am interested in participating in other research studies by The Tobacco Research Programs

If yes, provide the following contact information:

Email Address: _____

Phone Number: _____

Your signature documents your permission to take part in this research. You will be provided a copy of this signed document.

_____ _____
Signature of Participant Date

_____
Printed Name of Participant

_____ _____
Signature of Person Obtaining Consent Date

_____
Printed Name of Person Obtaining Consent