



Informed Consent Form

User name _____ User number _____ (to be filled in by staff)

Hello! We cordially invite you to participate in a social research for the iGEM (International Genetically Engineered Machine Competition) project!

I. Information for questionnaire participants

1. The purpose of this questionnaire is to examine the community's acceptance of the SCUT-China 2022 project on the dynamic regulation of co-expression of two terpenoids and their use in silk staining, not to collect your personal opinion and evaluate it. team (email.202067570032@mail.scut.edu.cn) 。

2. Project Description.

Today's textile industry is still a highly polluting and energy-consuming industry. The synthetic dyes used in large quantities in the production and dyeing process can cause serious pollution to the environment. Under the global trend of green environmental protection, natural pigments as a natural, non-toxic and harmless pigments are again starting to be noticed. Terpenoids are a class of hydrocarbons with special fragrance, antibacterial and antioxidant properties, and are now used in large quantities in food, cosmetic and pharmaceutical industries. Patchouli alcohol and lycopene belong to terpenoids and are widely found in plants. The former, as the most representative of aromatic sesquiterpenes, is one of the main components of patchouli oil and has fragrance, antibacterial and antibacterial properties; the latter, as a carotenoid widely found in nature, also serves as a fat-soluble functional pigment with bright color and antioxidant, anti-aging, anti-mutagenic, scavenging The latter, as a carotenoid widely found in nature, is also a fat-soluble functional pigment with bright color and various physiological functions such as antioxidant, anti-aging, anti-mutagenic and free radical scavenging.

In this project, the SCUT-China 2022 team proposes to co-produce the sesquiterpene patchouli alcohol and the tetra-terpene lycopene by constructing a



recombinant Bilbao yeast system, and to produce silk fabrics with antibacterial, antioxidant and environmental friendly properties by using lycopene as dyeing and reducing agent and patchouli alcohol as fragrance enhancer and bacteriostatic agent.

3. What the participant (i.e. you) needs to participate in.

Fill out the paper/electronic questionnaire (about 10-15 minutes): general information (anonymous and not personal), project profile, questions and answers in the areas of dyes, clothing, synthetic biology, etc. related to the project.

4. Describe the possible benefits of participating in this questionnaire.

You will not directly benefit, but the information you provide will help us gain a deeper understanding of the social acceptance of terpenoids for dress and silk dyeing, help us better improve the shortcomings of the project, and promote a better integration of this project into society. You will also learn about synthetic biology and the application of terpenoids in your life.

5. Possible discomfort and risks associated with the questionnaire: none

6. Principle of confidentiality.

This questionnaire study is strictly confidential to your personal data and information, privacy, etc. After the study is completed, the paper and electronic questionnaires will be kept safe and confidential, and we will not conduct any study other than the above mentioned study without your same.

7. Principles of participation.

There is no cost to you to participate in this survey. It is entirely your freedom whether you participate in this questionnaire, or whether you participate in the same recording, or whether you withdraw in the middle of filling out the questionnaire. You will not be harmed or harmed by refusing to participate or withdraw from the study, and you may refuse to answer some study questions if they make you feel uncomfortable.



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II. Informed Consent Signature

I have read the informed consent form in detail and I fully understand the purpose, nature, methodology and my rights and risks of participating in this survey, and I am informed that this survey does not involve personal information, the research data is confidential and the right to privacy is protected. I voluntarily participate in this survey and agree to complete this questionnaire honestly and conscientiously.

Participant's signature _____ Date _____