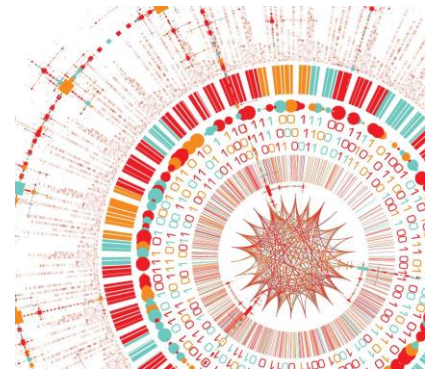


DNA Day 2023 – Art GEnome

Art work competition for biomedical students



Rules

What is the DNA DAY Art Genome competition?

It has been more than 60 years since James Watson and Francis Crick described the double helix structure of the DNA. April 25th is the International DNA Day, which was established by the European and American Societies of Human Genetics and is celebrated all over the world with various events¹.

This year, for the first time in Georgia, an art competition will be held with the participation of students in the biomedical field. The purpose of the competition is to promote the knowledge of genetics in Georgia, interest in science and development of creative thinking. The competition is dedicated to the 20th anniversary of the completion of the Human Genome Project. The Human Genome Project was a large, well-organized, and highly collaborative international effort that generated the first sequence of the human genome and that of several additional well-studied organisms. Carried out from 1990–2003, it was one of the most ambitious and important scientific endeavors in human history^{2,3}.

The organizers of the competition are the Department of Molecular and Medical Genetics, Tbilisi State Medical University and the Georgian Society of Medical Genetics and Epigenetics.

Before you start, please read the rules carefully!

Terms and Conditions:

Students of biomedical departments of higher institutions of Georgia can participate in the competition.

Only one submission per entrant is allowed

Participants will have the opportunity to present their works (paintings, digital graphics and other compositions, including 3D applications, embroidery, etc.).

- The artwork must be relevant to the specified topic.
- The size of the physical artwork should not exceed A3 (297 x 420 mm).
- Both digital and traditional artwork is accepted.
- Digital artwork should be submitted in a high resolution (at least 300 dpi) in JPEG, TIFF or PNG format.
- Traditional artwork should be sent by e-mail: dnaday.art@gmail.com in the form of a high-resolution photograph (at least 300 dpi) and must be presented physically at the Department of Molecular and Medical Genetics, TSMU (address: 29 Vazha-Pshavela Ave., 4th floor).

- Each submission should be accompanied by the following information in PDF format: The submitter's name, name of institution, faculty, contact phone number and e-mail address, the title of the artwork, and a short description of how the image relates to the topic and the inspiration behind it (max. 150 words).
- The competition closes at **17:00, on Monday, 16th of April 2023**
- The artwork should be sent by e-mail: dnaday.art@gmail.com (traditional works should be presented by email and physically at the Department of Molecular and Medical Genetics of TSMU).
- The files should be named in the following format: surname_name_dnaday_art_2023 (Surname and first name should be in English) Sample: Kiknadze_Ana_dnaday_art_2023;
- In the "Subject" field of the e-mail, indicate the following: surname_name_dnaday_art_2023 (Surname and first name should be in English) Sample: Kiknadze_Ana_dnaday_art_2023;
- Attach a JPEG, TIFF or PNG file and send.
- Late submissions will not be considered.

The organizing committee has the right to not consider any work that does not comply with the theme, the rules and conditions indicated above, as well as general ethical principles.

By entering the competition all entrants grant to organizers the right to publish and exhibit their artworks in any of our publicity and on the website.

All entries must be the original work of the entrant.

The competition is open to Georgian and international entrants.

All entries will be judged by a panel of judges. The judges will select a short list of artworks for publication on the website.

The Topic of the Contest 2023:

From the Human Genome Project to CRISPR-Cas9 genome editing technology.

The Human Genome Project (1990-2003) contributed to the development of genomic and personalized medicine. Data sharing was the main principle that led to the success of the project. Genome sequencing has made it easier to study the underline mechanisms of single-gene, Mendelian diseases. However, determining the genetic causes of common, multifactorial diseases requires the study of multiple genetic risk factors, for which genome-wide association studies (GWAS) are used. Among recent advances in genomic technologies, the CRISPR-Cas9 system is noteworthy. For all its genome-editing prowess, CRISPR–Cas9 technology is better suited to gene inactivation than repair. That’s because although targeting the Cas9 enzyme to a genomic sequence is relatively precise, the cell’s repair of the resulting double-stranded cut is not. Mediated by a process called non-homologous end-joining, CRISPR–Cas9 repairs are often muddled by small insertions or deletions.^{2,3}

You have full creative freedom when creating the work, but it must relate to the human genome, genomic technologies and their importance in health and disease.

For inspiration you can visit the websites:

<https://www.rcpath.org/discover-pathology/competitions/art-of-pathology-competition.html>

<https://www.lji.org/blog/san-diego-students-share-science-through-art/>

<https://www.cardiff.ac.uk/news/view/1479095-medical-students-display-their-creative-talents-at-the-national-museum-in-cardiff>

Prizes:

First Place - 500 GEL

Second Place - 300 GEL

Third Place - 200 GEL

In addition, winners will have the opportunity to participate in the two-day lab workshop: *CRISPR-Cas9 technologies* in the TSMU Molecular and Medical Genetics Department’s laboratory

All participants will receive a certificate of participation

References:

¹eshg.org, accessed February 14, 2023; ashg.org, accessed February 14, 2023

²www.genome.gov, accessed February 14, 2023

³<https://www.nature.com/articles/d41586-022-00163-x>, accessed February 14, 2023

Special dates

17 February – Submissions open

16 April – **Deadline of submissions**

25 April – Winners will be announced

www.geneticsgeorgi.org

Facebook: @geneticsgeorgia

For additional questions and support, please send an email to: geoepigene@gmail.com

Or call: 599298168 between 9.00 - 17.00 hrs.

Department of Molecular and Medical Genetics of TSMU

Scoring

All entries will be scored by a panel of judges

Scoring will be based on the following criteria:

- Compliance with the topic of the competition (5 pts)
- Technical capabilities (5 pts)
- Originality (5 pts)

Total - 15 pts

Three winners will be selected for I, II and III places. All participants will receive a certificate of participation. The winners will be announced on April 25. The winning entries will be published on the website:

www.geneticsgeorgia.org.

Good Luck!