Aims and Scope

Aurum Journal of Health Sciences (AJHS – A. J. Health Sci.) is an international open access platform for basic, applied, theoretical and clinical studies in health sciences. AJHS publishes double blind peer-reviewed research articles, short reports, case reports, invited reviews and letters to the editor. AJHS is published triannually both in printed and electronic version. AJHS is a multidisciplinary journal on health sciences and accepts manuscripts on dental, medical, health services and pharmaceutical studies. The manuscripts linking different disciplines of health sciences will be given a priority in the journal.

AURUM
Journal of Health Sciences
(A. J. Health Sci.)
Volume 3 No 1
ISSN: 2651-2815

Owner
Altınbaş University President of the Board of Trustees Ali ALTINBAŞ

General Coordinator
Prof. Dr. Çağrı ERHAN

Graphic Design
Onur SERTEL, Altınbaş University, TR

Contact Information
a.jhealthsci@altinbas.edu.tr
http://aurum.altinbas.edu.tr/tr/journal_of_health_sciences

Publication Frequency
Tri-annually

Publication House
Sena Ofset

Date of Publication
31 January 2021

Basic Medical Sciences

Prof. Dr. Oktay Arda
Altınbaş University, Faculty of Medicine, Department of Histology and Embryology
Prof. Dr. Zahra Zakeri
Queens College of City University, New York, USA
Prof. Dr. Mara Pilmane
Riga Stradins University Institute of Anatomy and Anthropology, Latvia
Prof. Dr. Feride Severcan
Altınbaş University, Faculty of Medicine, Department of Biophysics
Prof. Dr. Serap Arbak
Acıbadem University Faculty of Medicine, Department of Histology and Embryology
Prof. Dr. Gülderen Şahin
Istanbul University, Cerrahpaşa Faculty of Medicine, Department of Physiology
Prof. Dr. Melek Öztürk Sezgin
Istanbul University,Cerrahpasa Faculty of Medicine, Department of Medical Biology
Prof. Dr. Tania Marur
Istanbul University,Cerrahpasa Faculty of Medicine, Department of Anatomy
Prof. Dr. Hrısi Bahar Tokman
Istanbul University, Cerrahpaşa Faculty of Medicine, Department of Microbiology
Assoc. Prof. Dr. Yekbun Adıgüzel
Altınbaş University, Faculty of Medicine, Department of Biophysics
Assist. Prof. Dr. Şebnem Garip Ustaoğlu
Altınbas University, Faculty of Medicine, Department of Biochemistry
Assist. Prof. Dr. İlknur Dursun
Altınbaş University, Faculty of Medicine, Department of Physiology
Assist. Prof. Dr. Ayça Mollaoğlu
Altınbaş University, Faculty of Medicine, Department of Physiology
Assist. Prof. Dr. Kristel Paola Ramirez Valdez
Altınbaş University, Faculty of Medicine, Department of Medical Microbiology
Assist. Prof. Dr. Gülkızılca Yürür
Altınbaş University, Faculty of Medicine, Department of Medical Ethics
Assist. Prof. Dr. Akın Sevinç
Altınbaş University, Faculty of Medicine, Department of Biochemistry
Dr. Mohammad Y.M. Al-Talahma
Altınbas University, Faculty of Medicine, Department of Anatomy

Neuroscience

Prof. Dr. Ertan Yurdakoş
Altınbaş University, Faculty of Medicine, Department of Physiology
Prof. Dr. Tamer Demiralp
Istanbul University, Istanbul Faculty of Medicine, Department of Physiology
Prof. Dr. Filiz Onat
Marmara University, Faculty of Medicine, Department of Medical Pharmacology
Prof. Dr. Metehan Çiçek
Ankara University Faculty of Medicine, Department of Physiology

Immunology

Prof. Dr. Günnur Deniz
Istanbul University, Aziz Sancar Institute of Experimental Medicine, Department of Immunology
Prof. Dr. Fatma Oğuz
Istanbul University, Istanbul Faculty of Medicine, Department of Medical Biology

Genetics

Prof. Dr. Uğur Özbek
Acibadem University Faculty of Medicine, Department of Medical Genetics
Prof. Dr. Ersan Kalay
Karadeniz Technical University Faculty of Medicine, Department of Medical Biology and Genetics

Liabilities and Responsibilities of Editors

AURUM editors are obliged to be accountable for all kinds of activities they engage within the context of publishing the journal. Their main goal is set to respond the need of readers and authors while enhancing the academic performance of the journal. It is their duty to support freedom of opinion and ensure the reliability of the academic content. Considering the financial challenges in publishing sector, the editors are obliged to exclude impacts of any commercial concerns on AURUM not to sacrifice from its intellectual and ethical standards. They accept in advance to publish any kind of corrections, refutations and excuses when required. The responsibility towards readers is a sensitive issue where the editors should inform about the funder of particular research or other academic work. If the financial supporters of particular research have any impact on a scholarly work, the reader must be informed. Editors' action to admit or reject a scholarly work must be free of subjective criterion but based on objective standards related to its uniqueness/originality and relevance to the research areas of AURUM. The process of receiving application shall be fully democratic where all applications to be considered unless major errors are observed. Once an author receives an acceptance of publishing from AURUM his/her right cannot be withdrawn in case of an editor change within the process. The authors shall be given an opportunity to initiate an appeal process against any editorial discretion. As editors should offer a guidance of preparing the manuscripts, AURUM stands behind it's published "style guide" and preserves it's right to make revisions.

The articles sent to our journal are checked for plagiarism with the "iThenticate" program and the articles with high similarity rates are rejected. The accuracy of used all references and the ethical responsibility of the article belong to the author.

aurum
Volume: 3 | No: 1
January 2021

Contents

aurum

JOURNAL OF HEALTH SCIENCES
A. J. Health Sci.

Volume 3 No 1 | January 2021, IX

Editorial

Post-Covid Era

When we look back at this more-than-one-year period, we see that we have passed through a dust cloud. Although that cloud has not disappeared yet, we are now more hopeful with the help of ongoing vaccination all over the world. In this era where everything is changing so fast, it is also necessary to think about what awaits us with the end of the pandemic. How will the post-Covid era be shaped? There is a wide range of topics waiting to be discussed: the future of online education, management of health services, virtual and hybrid congresses, digitalization in every area, the necessity of managing financial resources to science and protecting nature. Emphasizing the vital importance of science is one of the areas that fundamentally interests us as scientists. The pandemic has reminded us once again that science is the only way out of such catastrophic events. The importance of investing in basic sciences was once again emphasized. Thinking about these multi-dimensional issues is as important as doing science, for this we should write articles and share ideas about the development and importance of scientific thinking in our journal.

As Aurum Journal of Health Sciences, we are pleased to announce our new issue. We would like to thank all writers and reviewers for their valuable contributions.

Gaye Hafez, PhD
Editor-in-Chief
https://orcid.org/0000-0002-0837-634X

References

Press, W. H., & Levin, R. C. (2020). Modeling, post COVID-19. Science (New York, N.Y.), 370(6520), 1015. https://doi.org/10.1126/science.abf7914

Reid, M., Abdool-Karim, Q., Geng, E., & Goosby, E. (2021). How will COVID-19 transform global health post-pandemic? Defining research and investment opportunities and priorities. *PLoS medicine*, 18(3), e1003564. https://doi.org/10.1371/journal.pmed.1003564

aurum

JOURNAL OF HEALTH SCIENCES
A. J. Health Sci.

Volume 3 No 1 | January 2021, 1-2

Letter to Editor

22.12.2020

Dear Editor,

On October 7th, we got the news on Nobel Prize in Chemistry, awarded for CRISPR-Cas9 genetic scissors, the so-called game changer technology, which was first described in 2012. The prize was given to Emmanuelle Charpentier, director of the Max Planck Unit for the Science of Pathogens, in Berlin, Germany and Jennifer A. Doudna, professor at UC Berkeley and faculty scientist at Howard Hughes Medical Institute. The "First-all Female Scientists Team" promoted a huge development in science and opened doors to new discoveries in basic science, agriculture and medicine.

CRISPR-Cas9 gene editing tool has been adapted to a genome editing system that occurs naturally in bacteria. The bacteria create the so called CRISPR arrays, by capturing fragments of DNA from invading viruses. Via these arrays, the bacteria remember the virus and/or similar fragments of the virus. CRISPR-Cas9 technique has been worldwide used by researchers to develop new crops that withstand drought and pests, clinical trials for curing cancer, and there are hopes to help cure inherited diseases.

The recent achievements clearly show that humankind is benefiting from this technology. In clinical trials, some preliminary results showed that the altered genome of immune cells of three cancer patients has been well-tolerated and this could provide evidence of safety and feasibility in using CRISPS-Cas9 in treating human diseases. However, announcements like the birth of twin girls from genome edited embryos in November 2018 in China, raise up ethical, social, safety and efficacy concerns. Despite the main aim of the genome editing experimental trials being to fix genes with defects or make other edits in the genome of the embryo, it has been shown that unwanted changes of the genes can be generated. As a consequence, these changes lead to different outcomes in the cells of the same embryo. Such examples lead the scientific societies to conclusions, that the genome editing technology is not ready to be used in human embryos.

The countless applications are benefiting all of us in our research centres and we will most probably continue to benefit from this technology in the future. The number of CRISPR gene editing studies entering clinical trials is rapidly evolving for the treatment of various diseases. The first clinical trials in cancer patients involve the use of CRISPR-engineered T cells for cancer immunotherapy treatment with results supporting the effectiveness and general safety. Recent publications show early success of using genome editing tools to treat sickle-cell anaemia and ß-thalassaemia. The *BCL11A* erythroid-specific enhancer was successfully targeted by CRISPR-Cas9.

There are still questions that need to be answered: what will happen with the human genome editing in the long run? When will genome editing be proven to be safe and efficient to be used in editing human embryos? How many more experiments are necessary to be done on embryos to get an answer? Are there going to be rules and authorization in using gene-therapy kits in human genome editing, to

prevent misuse of the technology? When will CRISPR-based gene editing be routinely used in clinic? We still need more time to get an answer to these questions and learn more about this technology. Let's see together what surprising outcomes genome editing science CRISPR-Cas9 will bring us.

Eriona Heta, PhD
https://orcid.org/0000-0001-7156-7133
Research and Development Specialist and Project Manager
Myriamed, Germany

References

Ernst, M. P., Broeders, M., Herrero-Hernandez, P., Oussoren, E., van der Ploeg, A. T., and Pijnappel, W. P. (2020). Ready for repair? Gene editing enters the clinic for the treatment of human disease. Molecular *Therapy-Methods & Clinical Development*. https://doi.org/10.1016/j.omtm.2020.06.022.

Frangoul, H., Altshuler, D., Cappellini, M. D., Chen, Y. S., Domm, J., Eustace, B. K. and Ho, T. W. (2020). CRISPR-Cas9 gene editing for sickle cell disease and β-thalassemia. *New England Journal of Medicine*. https://doi.org/10.1056/NEJMoa2031054.

Ledford, H., Callaway, E. (2020). Pioneers of revolutionary CRISPR gene editing win chemistry Nobel. *Nature*, 586(7829), 346-347. https://doi.org/10.1038/d41586-020-02765-9.