Artículo Original Cualitativo

Design of the scientific journal of medical and life sciences Diseño de la Revista Científica de Ciencias Médicas y de la Vida Conception de la Revue Scientifique des Sciences Médicales et de la Vie

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ABSTRACT

Introduction: nowadays, universities are expected to shed the old profile and focus on the innovative university demanded today's times. And as one of the main sources obtaining new knowledge, they are expected to have university their own scientific journals.

Objective: to design the Scientific Journal of Medical and Life Sciences. Method: a study with a qualitative approach was carried out, based on a broad documentary review and specific work on the Open Journal Systems free software of the Public Knowledge Project provider, developed for journal management. **Results:** the scientific journal designed, like its counterparts, has a dynamic interface, where users can access for free, under a Creative Common License. With a set of links that provide readers, authors, editors, reviewers and librarians with the necessary tools to adequately develop each of their roles. Its editorial team is constituted by the Editorial Committee and by the National and International Scientific Advisory Board, with prestigious professionals in their area of knowledge. It aims to publish the scientific results of biomedical research of the Faculty of Medical and Life Sciences of the Da Vinci University of Guatemala, and other national and international institutions and researchers. Conclusions: the Scientific Journal of Medical and Life Sciences was designed with the firm interest of complying with international standards that allow it to be adequately indexed.

Key words: scientific journal, Open Journal Systems, indexing, medical and life sciences, innovative university.

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RESUMEN

Introducción: Se espera que las universidades se despojen del perfil antiguo y se enfoquen en la universidad innovadora que exigen los tiempos hoy. Como una de las principales fuentes de obtención del nuevo conocimiento, las universidades deben poseer sus propias revistas científicas. Objetivo: diseñar la Revista de Ciencias Médicas y de la Vida. Método: se realizó un estudio con enfoque cualitativo, sustentado en revisión documental amplia y trabajo específico sobre el software libre de Open Journal Systems del proveedor Public Knowledge Project, desarrollado para la gestión de revistas. Resultados: la revista diseñada al igual que sus homólogas, cuenta con una interfaz dinámica, donde los usuarios pueden acceder de forma gratuita bajo una Licencia de Creative Common. Con un conjunto de enlaces que le proporcionan a los lectores, autores, editores, revisores y bibliotecarios, las herramientas necesarias para desarrollar de forma adecuada cada uno de sus roles. Su equipo editorial está constituido por el Comité Editorial y por el Consejo Científico Asesor Nacional e Internacional, con profesionales de prestigio en su área del conocimiento. Se propone publicar los resultados científicos de la investigación biomédica de la Facultad de Ciencias Médicas y de la Vida de la Universidad Da Vinci de Guatemala, y de otras instituciones e investigadores nacionales e internacionales. Conclusiones: se diseña la Revista de Ciencias Médicas y de la Vida, con el firme interés de cumplir los estándares internaciones que le permitan la adecuada indexación.

Palabras clave: revista científica, Open Journal Systems, indexación, ciencias médicas y de la vida, universidad innovadora.

RÉSUMÉ

Introduction: de nos jours, on s'attend à ce que les universités abandonnent l'ancien profil et se concentrent sur l'université innovante exigée par les temps d'aujourd'hui. Et comme l'une des principales sources d'acquisition de nouvelles connaissances, ils sont censés avoir leurs propres revues scientifiques universitaires. Objectif: concevoir la Revue Scientifique des Sciences Médicales et de la Vie. Méthode: une étude avec une approche qualitative a été réalisée, basée sur une large revue documentaire et un travail spécifique sur le logiciel libre Open Journal Systems du prestataire Public Knowledge Project, développé pour la gestion des revues. Résultats: la revue scientifique conçue, comme ses consœurs, dispose d'une interface dynamique, à laquelle les utilisateurs peuvent accéder gratuitement, sous licence Creative Common. Avec un ensemble de liens qui fournissent aux lecteurs, auteurs, éditeurs, réviseurs et bibliothécaires les outils nécessaires pour développer adéquatement chacun de leurs rôles. Son équipe éditoriale est constituée par le Comité éditorial et par le Conseil consultatif scientifique national et international, avec des professionnels prestigieux dans leur domaine de connaissance. Il vise à publier les résultats scientifiques de la recherche biomédicale de la Faculté des sciences médicales et de la vie de l'Université Da Vinci du Guatemala, et d'autres institutions et chercheurs nationaux et internationaux. **Conclusion:** la Revue Scientifique des Sciences Médicales et de la Vie a été conçue avec le ferme intérêt de se conformer aux normes internationales qui lui permettent d'être correctement indexée.

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Mots clés: revue scientifique, Open Journal Systems, indexation, médecine et sciences de la vie, université innovante.

INTRODUCTION

It is necessary to put aside the old university and direct actions based on solving the new challenges imposed by today's world. A university that focuses its actions on the vision of science and technological innovation, a university that makes research an important pillar to solve all those practical problems that, when solved, lead to having an institution of excellence.

In order to meet the needs and demands that are growing at a rapid pace, universities must adapt to technological changes.¹ This type of institution has been recognized as a place where new knowledge is produced, technological advances of all kind, theoretical models and non-theoretical, among other contributions that are novel to science, given the integration that exists between assistance, management, university extension, teaching and research.

Professionals who work every day on what they are passionate about do not always find the way or the necessary orientation to publish everything they produce from an intellectual point of view. Some educational institutions encourage students to investigate from the first year of the degree. As a stimulus for these students, the works that deserve it, are published.

Ruben Blades said "What is the use of knowing something, if you do not share what you know?"² This phrase shows by itself the importance of a journal of this type, in order to disseminate the work of workers in the Health sector.

The vision of the Da Vinci University of Guatemala (UDV) is "to be a university community recognized worldwide for its innovation generating access to professional training of excellence, as well as for its impact on the development of society."³

To achieve it, it focuses on the following mission: "to create accessible opportunities for excellent university education, to graduate ethical, innovative professionals who are actively involved in the responsible progress of humanity."³

The wide repercussion of the opening of the Faculty of Medical and Life Sciences of UDV in today's society, and its impact on medical care, teaching and research, require this institution to provide theoretical and methodological content that allows a successful performance of professional and investigative skills, in the fulfillment of their job functions.

With the purpose of directing and guide the publications of the service, investigative, academic, assistance, managerial, university extension and professional improvement activities of the Faculty of Medical and Life Sciences of UDV, the Research Unit is created, who has within its functions the design and maintenance of the Journal of Medical and Life Sciences.

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For this reason, the question arises: how to design a university scientific journal for students and professionals of the Faculty of Medical and Life Sciences of the Da Vinci University of Guatemala that can publish scientific productivity and become a national and international benchmark, in the construction of new knowledge?

Hence, the purpose of the research was to design the Journal of Medical and Life Sciences of the Faculty of Medical and Life Sciences of the Da Vinci University of Guatemala.

METHOD

An investigation with a qualitative approach was carried out, with a review of the literature, in order to identify the platform that would best support the peer review process of the articles within a scientific journal. Meetings were held with experts from the Editorial de Ciencias Médicas de Cuba, in order to learn about their experiences with the Open Journal Systems (OJS) and their recommendations on the version to be installed by the Da Vinci University of Guatemala.

The experiences of the chief editors of the Journals: Cubana de Tecnología de la Salud, Chilena de Atención Primaria y Salud Familiar, Universidad Médica Pinareña, and Medical Sciences of Pinar del Río were also taken into account. And it was approved by the academic and investigative part of the Da Vinci University of Guatemala.

We had the support of the information technology department of the university for the installation of the OJS, granting of access and carrying out the updates of the pertinent modules, and email from the journal. Faculty technical support was responsible for having a direct telephone line for the Investigations Unit, which is the physical space where the journal is developed; as well as its connectivity.

RESULTS

The journal emerged in 2022 as an innovative proposal by Dr. Guillermo Antonio Chávez Meza, Physician and Surgeon specializing in Gynecology and Obstetrics at the University of San Carlos de Guatemala, with Master's Degrees from the Rural University and Mariano Gálvez University and an International Master's Degree from the University of Alicante de Henares of Spain, dean of the Faculty of Medical and Life Sciences of the Da Vinci University of Guatemala. The journal saw the light with its first publication in January 2023.

It is a scientific journal for professional publications of high scientific rigor, for all the students and professors of the faculty, as well as workers of the Health Sector in Guatemala and the world, who wish to publish their results.

The motivation arises from the conclusion of the first academic cycle and the graduation of the first class of doctors, in the Faculty of Medical and Life Sciences of Da Vinci University. This journal is

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intended to motivate students in this career to start their steps in scientific publishing, where they will see their efforts rewarded in a journal of international scope.

As well expressed on the home page of the Journal of Medical and Life Sciences (RCMV), this has the purpose of publishing the scientific results of the biomedical research of the Faculty of Medical and Life Sciences of the Da Vinci University of Guatemala, and other national and international institutions and researchers.

It is a multidisciplinary open access, peer-reviewed journal. It publishes articles that share research results on science, innovation, and technology in Health Sciences, Medical Sciences, Medical Education Sciences, Life Sciences, and Health Technology. It is an online publication with continuous periodicity that appears in 2023.

Its mission is to contribute to the dissemination of research results, updating and managing information and knowledge in the area of the aforementioned sciences; while its vision is to publish scientific productivity and become a national and international benchmark in the construction of new knowledge.

This journal does not apply charges for article processing or publication to authors, nor for downloading it to readers, and all its content is accessible and protected under a Creative Commons License.

In scheme 1 you can see all the components of a scientific journal when its articles are published.

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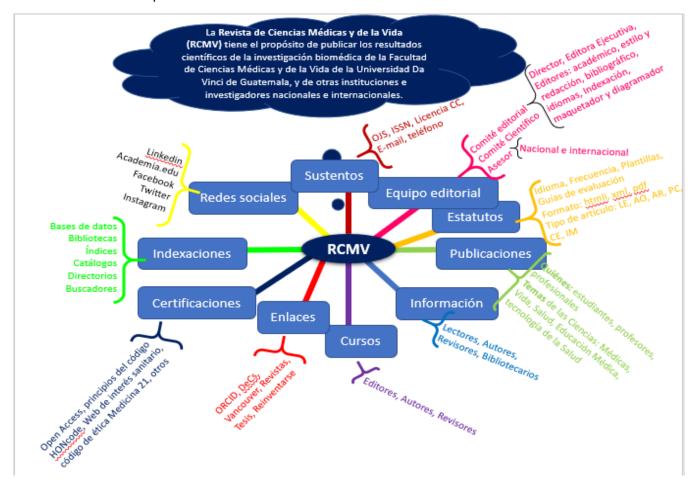
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Scheme 1. Mind map of the Journal of Medical and Life Sciences



Source: self made

The editorial process of any manuscript in a scientific journal begins with its submission to the selected journal. The author participates in the submission, review and editing, the main editor and section editors participate in the review of the editorial buffer or submission queue, revision of the submission as many times as necessary, issue management and publication. There are other roles such as manager, peer reviewer, style corrector, translator, among others that can be defined by the chief editor of the journal. (See scheme 2)

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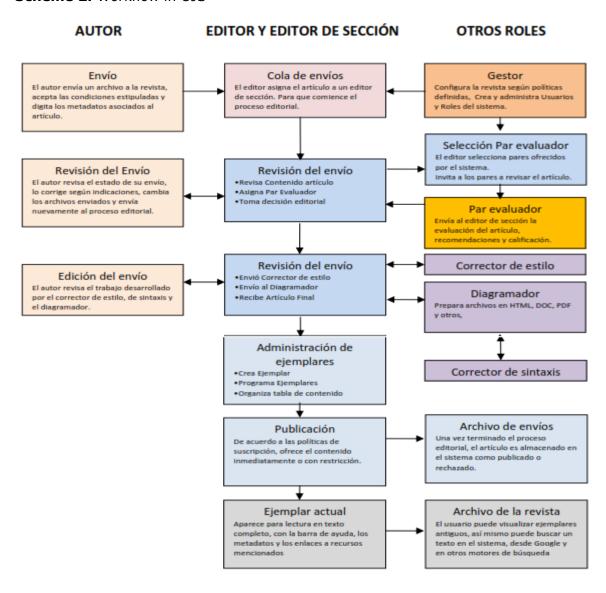
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Scheme 2. Workflow in OJS



Source: OJS User Manual. Introduction to Open Journal Systems V. 2.1.0.1

The third scheme presents the structure of the journal. It originates from the emergence of the Research Unit in the Faculty of Medical and Life Sciences, as a final part of the initial project of the Faculty when it was designed and implemented by the current dean.

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The journal is established with a clear mission and vision, based on the problem of making visible the research results of students from undergraduate. It is based on the OJS version 3.3.0.12, governed by its statutes where it is declared from the history of the journal to the guidelines for authors, as well as a set of tools that help in the integration of the work to be carried out in order to make visible the intellectual productivity of its authors and raise the impact factor in the scientific community.

Scheme 3. Structure of the Journal of Medical and Life Sciences



Source: self made

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Once the journal has been designed by the PhD in Sciences who directs the Research Unit of the Faculty, and displayed within the publishing house of the Da Vinci University of Guatemala as shown in image 1. This editorial arises at the starting point of the request of the designer of the site, to install the OJS, since unlike the Dspace that functions as a repository in the UDV, the OJS allows the realization of the much-needed peer review that a scientific journal requires.

Image 1. View of the Journal of Medical and Life Sciences from the portal of the UDV editorial in OJS and its cover



Source: Available at: https://editorial.udv.edu.gt/index.php/index

The cover of the journal was also designed. It will be used in the printed version of the journal, which will be carried out once or twice a year, depending on the quantity and quality of the articles published

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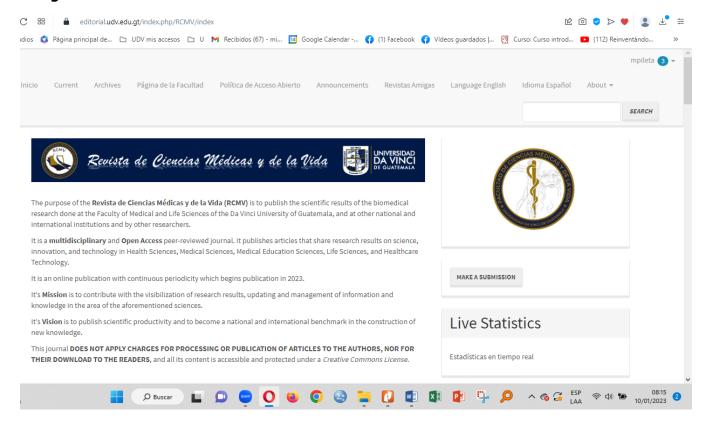




in the electronic version, as well as the number of readings. The journal and the logos comply with the line of colors assumed and established by the university and the Faculty.

Image 2 shows a view of how the journal looks when the reader accesses the site: https://editorial.udv.edu.gt/index.php/RCMV. With a QR code, it publishes full-text articles in Spanish and English, with abstracts also in French. Its periodicity is continuous, open access, so it does not charge readers or authors for reading, downloading or publishing articles. Its interface is dynamic, with links to the main tools that the actors most involved in the process may need.

Image 2. View of the Journal of Medical and Life Sciences



Source: Available at: https://editorial.udv.edu.qt/index.php/RCMV/index

The style for the bibliographic references is Vancouver, special attention is paid to the ethics of scientific publications and to plagiarism. The design of the journal follows the recommendations of the International Committee of Medical Journal Editors (ICMJE). One of its functions is to prevent malpractice in scientific publications and increase the credibility of a journal.

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In addition to the ICMJE, "various organizations and committees that have consolidated over the years point out the need to unite the efforts of authors, reviewers, and editors to minimize this problem, which is certainly not easy. Among others, the World Association of Medical Editors (WAME), (...) and the Committee on Ethics for Publications (COPE) stand out."⁵

DISCUSSION

The journal is part of the structure conceived for the Research Unit of the faculty. See scheme 4. The Coordination of Research and Graduation Work provides a large part of the editorial work of the journal.

Scheme 4. Organizational structure of the Research Unit of the Faculty of Medical and Life Sciences.



Source: self made.

Universities must recognize the appropriate organizational structure, with qualified, committed and responsible personnel, which helps to achieve the objectives. "Research in University Higher

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Education Institutions must serve all sectors of human resource management, which are systematically dedicated to carrying out scientific, technological and innovation activities."⁶

The level of commitment of its members is decisive to give output to each of the institutional projections. And recognizing the importance of research in the construction of new knowledge is vital every day to find alternative solutions to problems. To obtain new knowledge, a system approach, interdisciplinarity and transdisciplinarity are required.^{7,8}

The permanent and continuous education, the evaluation of the processes, as well as understanding research as the axis that could govern its center, would allow the achievement of changes and improvements. Current times with vertiginous transformations demand it. This is why research and postgraduate departments within universities must focus on being, doing and the know-how. They must be departments with creative, motivating members who lead by example.

The creation of the Investigations Unit (UI) in the faculty is already bearing fruit. The contents of the horizontal Research and Statistics program for students in the first four years of their medical studies were reorganized. Currently, work is being done on the homologation of these programs, in such a way that, when a student moves through any situation at various times of the academic year, between one campus and another, they receive the same class.

Work is being done on the certified training of the thesis advisors, reviewers and editorial team of the journal. Courses for authors are also taught. An International University Scientific Congress is planned for half a year, with an annual periodicity, where students and professors can share face-to-face and virtual scenarios with their counterparts from other national and international universities. This will have its master conference space where those present will be updated on certain topics of interest to the scientific community.

The Final Graduation Work Process Guide was carried out. It begins with a four-month workshop throughout the year, and leads the fifth and sixth year students of Nutrition, Sports and Medicine, from the first word of the title of their research topic, until the defense of its final report and closing and titling process. In addition to the Manual of Organization and functions that guides the work of the UI, it already has the aforementioned Journal of Medical and Life Sciences.

The OJS is free software, which allows "enjoying its facilities such as consulting and downloading information from the indexing and summary systems, in which our publication is found. Added to all this is the ease of access to the Digital Object Identifier (DOI) and the parameterization of the editorial process, among other useful facilities for editorial management today."⁹

When the ethical principles of scientific publication are complied with in a journal, and the articles are the product of research and an editorial process with high scientific rigor, it can aspire to indexing in catalogs, search engines, libraries, indexes, directories; which helps increase the impact factor.

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The latter is related to the number of citations that the articles have received from other publications; important aspect to study within the area of Bibliometrics and Scientometrics.¹⁰

To comply with what has been mentioned up to here, it is necessary to distinguish the characteristics of a scientific journal; which, according to Mujica-Sequera8, must have, as happens with the designed journal, an editorial team made up of professionals dedicated to teaching. They must have experience in a certain area of knowledge, which favors the quality of the peer review that is carried out.

In addition, scientific journals must comply with international standards established by the aforementioned organizations; work the original articles with the IMRYD format (Introduction, Method, Results and Discussion) to guarantee the replicability of the studies. Due to the rapid aging of knowledge, this type of journal plays an important role in the generation of new knowledge that feeds science.¹¹

When scientific journals are indexed, they are aimed at a broad public and scientific community, which sometimes does not occur with other types of journals. They also guarantee to a large extent that the authors achieve greater prestige, and from a scientific point of view achieve a high exchange of ideas. The proposed journal is a scientific research journal, refereed and indexed.⁸

It is a scientific journal that recognizes the importance of publishing content with high scientific rigor; that respects the established structure, the roles, the manuscript management process; with a human team, in collaboration with the scientific community; with a high belief in the transparency that science requires to be nourished by new knowledge, therefore, it complies with the established regulations, with ethical principles, where political and administrative divergences have no space.

With the aim of achieving the proposed vision, the journal is available to the public. It is expected that the investigative results presented here, the reviews, reflections and special collaborations, case presentations, medical images and editorials, contribute as an ultimate goal to: raising the quality of services, care, management, teaching, extension, research processes as well as the health status of the population.

CONCLUSIONS

As an implicit part of the Research Unit of the Faculty, the Journal of Medical and Life Sciences was designed, with the firm interest of complying with international standards that allow proper indexing.

CONFLICTS OF INTEREST

No conflicts of interest are declared.

BIBLIOGRAPHIC REFERENCES

1. Castelló Mayo E, López Gómez AM, Méndez R. La transferencia de conocimiento desde la universidad innovadora. Un modelo de gestión de la información en el contexto digital. Revista Latina

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de Comunicación Social [Internet]. [citado el 23 de noviembre de 2022];74(1):537–53. Disponible en: https://dialnet.unirioja.es/servlet/articulo?codigo=8241596

- 2. Aldanondo JM. Si sabes, enseña y si no sabes, aprende [Internet]. Otrasvoceseneducacion.org. [citado el 26 de septiembre de 2022]. Disponible en: https://otrasvoceseneducacion.org/archivos/29985
- 3. Crespo García, Fernando. El artículo científico: ¿rutina o método? Ediciones CENSA. La Habana, 1987.
- 4.Manual de usuario de OJS. Introducción al Sistema Open Journal Systems V. 2.1.0.1. Traducción y adaptación del documento "OJS in an Hour" del Public Knowledge Project. Universidad Nacional de Colombia
- 5.Bannura G. Ética en las publicaciones médicas. Rev. cir. [Internet]. 2019 Jun [citado 2022 Nov 26];71(3): 199-200. Disponible en: http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S2452-45492019000300199&lng=es. http://dx.doi.org/10.4067/s2452-45492019000300199.
- 6.De Sánchez C, Sánchez L. Importancia de la investigación para el mejoramiento de la calidad del recurso humano en las universidades [Internet]. Amelica.org. [citado el 28 de noviembre de 2022]. Disponible en: http://portal.amelica.org/ameli/journal/341/3412330011/3412330011.pdf
- 7.González H. Importancia de la Investigación en la construcción del conocimiento. Producción Agropecuaria [Internet]. 2018 [citado el 28 de noviembre de 2022];6(1):1–2. Disponible en: https://investigacion.unesur.edu.ve/index.php/rpa/article/view/81
- 8. Acosta ME. Fusión de las funciones sustantivas de la universidad: Investigación con pertinencia social en la docencia universitaria. CLIC [Internet]. [citado el 28 de noviembre de 2022];(22). Disponible en: https://convite.cenditel.gob.ve/revistaclic/index.php/revistaclic/article/view/1017
- 9. Barrera Mayor JA. La Revista Logos Ciencia & Tecnología y su gestor editorial. Revista Logos Ciencia & Tecnología. [Internet]. 2021 [citado el 23 de noviembre de 2022]; 13(1): 5-6. Disponible en: https://doi.org/10.22335/rlct.v13i1.1333
- 10. Ampudia de Haro F. Indexación y Factor de Impacto: La Academia y sus cajas negras. Athenea Digit Rev pensam investig soc [Internet]. 2021 [citado el 26 de noviembre de 2022];21(1):2752. Disponible en: https://run.unl.pt/handle/10362/118118
- 11. Mujica-Sequera RM. ¿Qué es una revista científica y su clasificación? [Internet]. Docentes 2.0. 2020 [citado el 26 de noviembre de 2022]. Disponible en: https://blog.docentes20.com/2020/04/que-es-una-revista-cientifica-y-su-clasificacion-docentes-2-0/

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LETTER OF AUTHORIZATION FOR PUBLICATION AND DISTRIBUTION

To the editorial committee of the Journal of Medical Sciences and Life

Article title: Design of the scientific journal of medical and life sciences.

Author's name: Miday Columbié-Pileta, Guillermo Antonio Chávez-Meza

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Date: November 29, 2022

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Dra.C. Miday Columbié-Pileta

Dr. Guillermo Antonio Chávez-Meza