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EDITORIAL

Medicine & Science Journal: a new multidisciplinary journal to fill the knowledge gaps in medical sciences through preclinical and clinical evidence

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The just started year 2023 is going to leave behind a long period ruled by the COVID-19 pandemics, that has deeply affected our lives and caused important development slowdowns in many aspects of science and medicine. For this, we would like to celebrate the beginning of this year of scientific renaissance by welcoming the "Medicine & Science Journal" (MSJ) published by Clinical Network Digital Medical Publisher [1]. A special appreciation goes to the International Editorial Board, for the impressive effort in establishing a new miliary stone in the era of modern medicine with this new scientific journal encompassing both experimental and clinical science in a fully translational package. The MSJ is a free open access journal for the public to read, aiming to achieve soon indexing in Scopus and Medline [2].

As Plato stated "…The beginning is the most important part of any work, especially in the case of a young and tender thing; for that is the time at which the character is being formed and the desired impression is more readily taken" [3]. For this we encourage junior and senior clinicians and researchers to consider this just born multidisciplinary publishing option. The MSJ is a broad-spectrum scientific journal including different aspects of medical science. The main thematic areas include, but are not limited to, Internal Medicine, Cardiology, Pneumology, Neurology, Hematology, Infectious Disease, Oncology, Pharmacology, Emergency Medicine, Anesthesiology and Intensive Care, and Preclinical and Basic Science.
In recent years, knowledge advances in therapies for several acute and chronic

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diseases and changes in practice guidelines based on novel evidence, have notably impacted on the comprehensive field of internal and emergency medicine. For instance, novel and groundbreaking therapies with promising prognostic implications have emerged for the treatment of heart failure, diabetes, respiratory failure, shocks, sepsis, and hypercholesterolemia, as well as for the management of patients needing anticoagulation for cardiovascular prevention. Similarly, acute care of patients in the pre-hospital setting or in the emergency department have changed concurrently with the continuous rising of technological innovations. Indeed, in the past decade, the healthcare systems have seen a sped up in digital transformation and technologies like never before, i.e. introduction of the artificial intelligence, telemedicine, apps and wearable monitoring systems, up to drugs and defibrillators delivered by drones. The call for personalized and precision medicine, also grounded on the advancement gained in the omics technologies and in epigenetics, has prompted research across medical and biological disciplines, largely supported by cutting-edge developments in the field of bioinformatics. The holistic field of medicine strives to spread innovative research, clinically relevant for the daily practice in general and emergency medicine and in the different medical specialties.

Thus, despite the extraordinary advances in cardiology, including innovations in medications, diagnostic modalities, and therapeutics, cardiovascular diseases remain the leading cause of morbidity and mortality globally. Cardiovascular care represents for many healthcare systems and organizations the daily battlefield where medical professionals at each level struggle against the suboptimal quality of care, inconsistent health outcomes, and unsustainable care costs. In this context, the MSJ mission is to provide clinicians with an understanding of the latest developments in cardiovascular medicine and to support and enrich their daily practice, by encouraging submission of manuscripts dealing with the precision medicine approach, exploiting the clinical, genetic, pharmacological, and biomarker information, going beyond the "classical" approach. Finally, a special place is given to digital transformation in cardiovascular health care, focusing on virtual care in heart failure, remote monitoring of cardiac arrhythmias, and artificial intelligence-driven cardiovascular care. In parallel, all aspects of the respiratory system, including physiology, pathophysiology, epidemiology, immunology and pharmacology of respiratory diseases, as well as new therapeutic interventions are covered by the respiratory section of the journal. Significant advances in precision medicine, which are likely to impact on clinical practice in pneumology are also expected.

The fast-growing field of Neurology includes multiple and often chronic disorders which have huge impact on patients' everyday life due to high epidemiologic indices and complex diagnostic and therapeutic management. In the last few years, numerous advances in genetics, laboratory testing and neuroradiology have been made leading to a better understanding of the intrinsic biological mechanisms behind neurological diseases, i.e.: identification of rare and unknown gene mutations in patients suffering from epilepsy; discovery of specific blood biomarkers for the diagnosis of neurocognitive disorders; the spreading use of perfusion-CT in acute cerebrovascular ischemic events; the use of monoclonal antibodies in the field of migraine. Translation from mechanisms to clinical practice is fundamental to guarantee the best clinical patient care.

Hematology is a specialty covering both clinical and laboratory aspects of adult and pediatric diseases, either malignant or non-malignant. Over the last years a great number of investigations have been made in diagnostic and therapeutic areas, contributing to the advancement of this discipline. Thus, an increasing understanding of molecular aberrations that trigger the development of leukemias has been reported, while a growing use of novel molecular biology technologies advanced the development of investigational drugs targeting driver genetic mutations. Immune-targeted therapies, including monoclonal antibodies targeting B cell-and T-cell associated antigens, tyrosine kinase inhibitors, bispecific antibodies and chimeric antigen receptor T- cell therapy, represent other attractive area of investigation. Finally, a rapid progress in stem cell research has paved the way for the development and use of new cell therapy products in regenerative medicine with several applications in hematology, transfusion medicine, and rheumatology/neurology fields related to transplantation. Similarly, the therapeutic scenario in Oncology has rapidly evolved with the introduction of several new drugs including targeted therapy, immune

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checkpoint inhibitors and/or their combination. The better understanding of biological and molecular mechanisms underlying tumor growth and progression as well as resistance to treatments has drastically revolutionized the therapeutic treatment algorithms of main solid tumors. A new era is starting with a considerable overcrowding in the therapeutic landscape, raising many questions that need to be addressed.

As we have unfortunately experienced, increasing human mobility due to international tourism, work, study and migration is a key factor for microorganism circulation worldwide. The cost of this increased mobility is the threat of a possible spread of known diseases with a significant epidemic potential and of newly identified or unidentified ("X disease") pathogens associated with a strong pandemic risk. Given that disease spreading is a considerable danger, we should not underestimate the main emerging infectious diseases presenting high epidemic potential. Additionally, infections are becoming a major threat for hospitalized patients, often fragile and immunosuppressed. Enhancing the basic infectious disease research for the development of immunotherapies, advanced diagnostics, vaccines, antimicrobial therapies effective in cases of infections by multidrug-resistant agents or other treatments capable of strengthening or restoring the immune defenses is therefore of fundamental relevance. The MSJ welcomes studies focusing on epidemiology, pathogenesis, immunology, and pharmacology about bacterial, viral, fungal and parasitic diseases, as well as preventive medicine protocols, public health policies and new emerging treatments.

The Pharmacology section represents the common thread among the different topics covered by MSJ, together with the area of emergency medicine and critical care medicine which cover the medical aspects related to the most acute patients and those treated in intensive care, requiring multiple organ function supports and advanced tools for prognostication.

Finally, preclinical research represents a key step in studying the potential of new drugs or therapeutic strategies before their translation into clinical trials. Current development in in vitro, in vivo and in silico experimental models allow for replication of biological phenomena underlying a wide range of pathologies. The preclinical and basic science section of MSJ covers a broad area of research, including all the clinical topics above discussed, i.e. internal and emergency medicine, neurosciences, physiology, cardiovascular medicine, pharmacology, hematology, oncology, infection disease, anesthesia and critical care. Basic science represents a leading aspect of MSJ, with the ambition to spread preclinical studies designed, conducted, analyzed and reported to the highest levels of rigor and transparency.

Socrates may ask if "…is it true; is it kind, or is it necessary?" …to have a new journal [4]? The answer is yes! Indeed, the MSJ is born with the aim to represent a new dynamic entity making a link from bench to bedside, from laboratory experiments through clinical trials to point-of-care applications, with a privileged perspective towards inclusiveness and interdisciplinarity. The MSJ is not just a new journal but the journal that will stimulate further advancement in the most emerging research topics, for continuing education of the medical community and the best delivery of care to patients. We are grateful to researchers, international scientists, clinicians, and academicians for their personal and successful contributions to promote a cultural challenge toward a new horizon in medicine and science, improving multidisciplinary and multiprofessional collaboration in basic sciences and clinical trials [5].

Publisher's Note

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