

ISLAMIC WORLD ACADEMY OF SCIENCES

Newsletter



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OIC Sets the Year 1441 Hijri (2020) as target year

Vision 1441: Why?

Moneef R. Zou'bi
Director General, IAS

The Organization of the Islamic Conference (OIC) was founded in 1969 as a political organization grouping Islamic countries. In 1981, the heads of state of the OIC decided to establish a number of specialized organs to enhance co-operation between the OIC-Member Countries in the fields of Culture, Trade and Science and Technology, the latter assignment was given to COMSTECH; the Standing Committee on Scientific and Technological Co-operation, based in Islamabad (Pakistan). In 1984, the heads of state of the OIC approved a proposal of COMSTECH to launch the Islamic World Academy of Sciences (IAS) as an independent autonomous S&T Think Tank of the OIC that would located in Amman, Jordan.

Throughout the 1980s and the 1990s, a lot of effort was expended by individual OIC-Countries as well as the various off-shoot organizations to enhance the science and technology capabilities of the *Ummah*. Indeed many OIC countries managed successfully implement a number of major programmes in the domains of science and technology.

In this context, It is heartening to see a number of OIC countries

such as Malaysia, Pakistan, Jordan, Egypt, Tunisia, the Emirates,... reacting promptly to the ICT revolution, and making up for lost development opportunities of the past, however much more on the collective level needs to be done.

It was also heart-warming to see the 2003 OIC Summit adopt a sensible yardstick to measure development in the domain of science and technology that we can all relate to.... VISION 1441.

VISION 1441, which the main feature of this IAS Newsletter, is a set of 4 goals, a number targets and performance indicators relating to the state of science and technology that we would like to see ourselves achieve by the year 2020. The newness of Vision 1441 lies in two main dimensions:

- (a) By incorporating quantitative and time-bound targets, the Vision demands specificity in development actions and emphasize systematic measurement;
- (b) By defining the goals in terms of outcomes - as distinct from inputs and outputs - it draws attention to the multi-sectoral determinants of outcomes.

These new elements may warrant changes in some practices and programs adopted by countries.

Vision 1441 serves as a visionary challenge to help galvanize new energies and resources for the S&T development agenda, with a focus on outcomes. Since it is clear that many countries and regions will not achieve the parameters of the vision by 2020, the risk of disappointment and cynicism must be mitigated. And there are other challenges: customizing the Vision to local conditions, harnessing contributions from sectors without explicit in its goals or targets, focusing on outcomes among poor countries and population groups rather than on average outcomes, and addressing incentives for both achieving and monitoring outcomes.

Vision 1441 manifests a commitment by OIC-Member Countries - rich and poor - or - North and South - to doing all they can to achieve a reasonable level of S&T advancement. To my mind it represents the long overdue marriage of *POLITICS and POLICIES!*

Kuala Lumpur Declaration on Science and Technology for SOCIO-ECONOMIC Well-Being of the Ummah

Organisation of Islamic Conference (OIC) Conference on Science and Technology

Science and Technology for Industrial Development in Islamic Countries: Facing the Challenges of Globalization

October 7- 10, 2003

Kuala Lumpur, MALAYSIA

Adopted by the Islamic World Academy of Sciences in March 2005

PREAMBLE

*Only those of His servants with knowledge have fear of God.
God is Almighty, Ever-Forgiving
(Chapter 35: Al-Fatir, verse 28);*

*Read in the name of your Lord, Who created: created man
from a clot of congealed blood. Read: and your Lord is most
Generous, Who taught knowledge by the pen: taught man
what he did not know.
(Chapter 96: Al-'Alaq, verses 1-5).*

Knowledge acquisition is emphasised in the teachings of Islam. This quest for knowledge has assumed increasing importance in today's knowledge-intensive economy. Success in the new economy will go to firms and countries that are proficient in the acquisition, generation, distribution and exploitation of knowledge. The Muslim world is facing a knowledge gap because of its deficiency in science, technology and innovation (S&T). For example:

- OIC countries' expenditure on R&D as a proportion of GDP – about one tenth that expended by most developed nations;
- Number of researchers, scientists and engineers in the OIC engaged in R&D is one tenth that found in the developed world;
- The number of patents filed by OIC nationals in 1997 accounted for only 0.3% of the world average;
- Scientific publications in international journals by scientists and engineers from member countries accounted for only about 3% of the world's total.

This deficiency in Muslim S&T is particularly intriguing given that Muslims were once world leaders in S&T a millennium ago. Arresting this decline in S&T will not be easy. The Muslim world has no other alternative than to invest heavily in human resource development and S&T infrastructure. Despite considerable progress in advancing human development and reducing poverty over the past two decades much still remains to be done. A new vision grounded on a commitment for S&T is necessary in order to ensure that the Islamic world reclaims its past supremacy in S&T.

We the delegates of the Organization of Islamic Conference (OIC) Conference on Science and Technology: Science and Technology for Industrial Development in Islamic Countries: Facing the Challenges of Globalisation,

VISION 1441

The Muslim world needs a vision to rededicate ourselves to mastering S&T to ensure that we can face the challenges of the new global economy with confidence. Our vision would be:

“OIC member states are committed to become a community that values knowledge and is competent in utilising and advancing S&T to enhance the socio-economic well-being of the Ummah.”

KEY STRATEGIC THRUSTS IN ACHIEVING VISION 1441

We identify 7 key strategic thrusts that are central towards the realization of our vision as follows:

Commitment

Ensure that there is commitment at the highest political level to S&T that translates into solid and sustained investments in S&T including human resource development and infrastructure by both government and industry;

Capabilities and Capacity

Improve our ability to acquire and transform S&T knowledge and skills for a strong competitive advantage. Human resource is our ultimate resource. Industries need to be strengthened to ensure the vitality of our industrial base. Also, our S&T institutional framework also needs to be revamped to enable it to provide the necessary leadership in driving the agenda for change. A modern knowledge infrastructure is essential to enable us to undertake productive research;

Collaboration

Promote smart partnerships and synergy among our research institutions, universities and industries to enhance the effectiveness of our S&T efforts;

Concentration

We cannot go it alone in S&T development. Our resources – manpower and financial – are limited. We need to be selective in ensuring that resources

Culture

Developing a society that is appreciative and supportive of S&T. We need to create an environment which encourages and rewards ideas, supports science and innovation, promotes entrepreneurship and inspires interest in S&T careers.

Community

Improving the quality of life of the society by making S&T relevant to their daily lives in terms of technologies which enhances efficiency and convenience. We need to develop the innovation capacity of the community empowering them to use S&T to meet local needs.

Compassion

The pursuit of our S&T vision does not diminish our concerns in assisting our disadvantaged members.

REALIZING OUR VISION: ACTION PLANS;

COMMITMENT: OIC TO CHAMPION THE CAUSE OF S&T

Proficiency in S&T does not happen by chance. It must be made to happen. Making it happen demands the commitment at the highest levels in government, industry and S&T education institutions. We seek the support of the Heads of State/Government to champion the cause of S&T.

RECOMMENDATIONS

1. OIC Summit to adopt **Vision 1441** and its objectives as the guiding principle in steering our S&T development for the next two decades. The **key objectives** of Vision 1441 are:
 - to achieve at least **14 percent** of the world's scientific output by the year 1441 H through increased investments in S&T including R&D;
 - to achieve competent workforce of at least **1441 RSEs** (researchers, scientists and engineers) per million by year 1441H; and
 - to achieve investments in R&D of at least **1.4 percent** of GDP
2. To conduct an annual OIC conference on S&T parallel to the ICFM annual meeting;
3. Establish a seed fund totalling 500 million USD to support, amongst others;
 - establishment of a Pan-Islamic R&D Fund to promote R&D investments among member countries;
 - establishment of a Muslim World Technology Investment Fund such as venture capital, for the acquisition of technologies and growth of new technology-based companies;
4. Support greater industry participation and investments in R&D/technology development activities through provision of attractive fiscal and financial incentives as well as other support measures;
5. Increase budget for education and training in order to expand and enhance educational opportunities at all levels including technical and vocational education as well as adult and continuing education;
6. Establish strong and dedicated institutional framework for Science, Technology and Innovation incorporating scientific management and advisory

including industry to underscore the importance of as well as to provide committed leadership and policy direction to the promotion and development of S&T through national plans of action/national S&T policy;

7. Establish and strengthen national academies of sciences in OIC countries to act as independent advisory bodies to the respective governments;

STRENGTHENING S&T CAPABILITIES AND CAPACITIES

Skilled people are at the centre of the new economy. They are the building blocks of our efforts to transform our economies. The availability of skilled people especially in S&T among member countries is extremely low - in most cases the figure is less than 10 researchers, scientists and engineers per 10,000 labour force. Member countries need to urgently address this deficiency by instituting various human resource development programmes in science, technology and engineering including expanding opportunities for greater participation of women in these disciplines. Such efforts will take time to yield results. In the meantime, member countries that are well endowed with educational facilities can encourage admission of more students from OIC member countries. Such a move will not only contribute towards developing the human capital of member countries, but will go a long way towards building greater people to people understanding among the Ummah.

Despite the low numbers in S&T manpower, there exists, among member countries, expertise in specific scientific and technological disciplines. We can harness this pool of expertise to address many of our development problems such as desertification and cheap and clean drinking water. These experts may include many of our expatriate nationals who may still be very concerned with the development of their country of origin as well as the Ummah because of cultural, family or other ties. The objective, then, is to create the links through which they could effectively and productively be connected to the development of the Muslim world.

RECOMMENDATIONS

8. Enhance and expand opportunities and participation of women in the mainstream of development in particular areas relating to S&T;
9. Increase seats for OIC nationals for undergraduate and post-graduate education in institutions of higher learning in member countries;
10. Launch science and technology management training courses for senior personnel of S&T institutions as well as those from industry among member countries;
11. Expanding capabilities towards new and emerging technologies such as nanotechnology and photonics;
12. COMSTECH and IDB to harmonise the development of a comprehensive information portal/database on S&T and industry of member countries and to help disseminate the guidelines for the National IT Strategy prepared by IDB for the maximum benefit of member countries;
13. To take advantage of existing centres of excellence in Muslim countries for training of Muslim scientists;

FOSTERING COLLABORATION IN S&T

Closer understanding among member countries is essential towards the development of long lasting partnerships. Such understanding is often the product of deliberate and conscious efforts over a period of time. This intimate relationship is poorly developed and has not taken a firm root among member countries.

Given limited resources, both financial and manpower, amongst member countries it becomes crucial that collaboration lies at the heart of our S&T efforts. Pockets of excellence exist among member countries in specific technologies for example, petroleum engineering; micro-chip design; highway construction; and water desalination. Such expertise could be shared and enhanced through joint projects among interested parties. These collaborations could also focus on the new and emerging technologies particularly in specific applications that build on the comparative advantages of member countries. Research partnerships in the basic sciences particularly in the emerging technologies are vital towards enhancing our mastery of these technologies. Malaysia is planning to establish a number of institutions on fundamental sciences under the stewardship of the Academy of Sciences Malaysia and invites researchers from member countries to participate in its programmes. An ongoing forum to forge alliances among research organisations and firms of member countries, modelled along the lines of smart partnerships spearheaded by the Malaysian Industry-Government Group for High Technology (MIGHT) and other fora, would serve as a useful platform to chart new approaches.

RECOMMENDATIONS

14. To foster collaborations with international bodies such as UNESCO, UNU, etc. as well as regional bodies involving OIC member countries to develop S&T on a global basis;
15. Malaysia in collaboration with COMSTECH and IDB to initiate smart partnerships to harness scientific and technical strengths of existing and proposed centres of excellence among member countries;
16. To promote and expand existing academia-industry linkage programmes across OIC countries including programmes to enhance commercialisation of R&D;
17. Establish OIC *Business Angel* Networks

CONCENTRATING OUR S&T EFFORTS

Given limited resources, both financial and man power, among member countries, it becomes crucial that selectivity lies at the heart of our S&T efforts. Many member countries are not conversant with new methodologies in prioritising S&T projects. We cannot afford to dilute our limited resources across a broad front. We must be strategic in approach and support developments in those areas that

RECOMMENDATIONS

18. Malaysia, COMSTECH and IDB to conduct technology assessment through technology foresight and/or technology mapping or other similar methodologies to enhance competencies in prioritisation of S&T projects.

FOSTERING A CULTURE OF SCIENCE, INNOVATION AND ENTREPRENEURSHIP

S&T will flourish in an environment that is receptive to their developments. Accordingly, developing a supportive attitude in society for change through increasing S&T awareness and appreciation programmes is crucial towards engendering a climate for invention, innovation and entrepreneurship. Such appreciation has yet to take firm root in almost all member countries. The rich Islamic heritage in science, technology, medicine, astronomy, medicine, mathematics and philosophy must be capitalized as a source of motivation for excellence in S&T. Scholarship in the history and philosophy of Islamic sciences, and its relevance to the contemporary Islamic world must be cultivated so that we do not lose touch with our Islamic cultural base. Such scholarly understanding will provide firm cultural foundations for the Muslim Ummah and avoid problems of cultural alienation in the quest for modernity through S&T.

RECOMMENDATIONS

19. Initiate collaborative programmes among grass-root communities, civil societies and NGOs, industries and academies in member countries to promote greater science awareness among citizens;
20. For Malaysia, COMSTECH and IDB to establish a virtual network of expatriate Muslim scientists, technologists and business leaders, and to promote a regular interaction between them and Muslim scientists residing within OIC member countries;

APPLYING S&T FOR COMMUNITY GOALS

Developments in S&T need to be sensitive to the concerns of the masses such as provision of reliable electricity supply, water and telecommunications. Additionally, applications of S&T can have enormous impacts on agricultural productivity besides addressing problems such as desertification. Innovative applications in several community development projects in Malaysia have demonstrated the potentials of harnessing Information and Communication Technologies (ICTs) in transforming several traditional sectors. Additionally, the widespread diffusion of ICTs offers a major opportunity to member countries to bring science closer to the lives of citizens in their countries.

Rapid advances in the new technologies especially in the fields of genetics are raising serious moral and ethical concerns. We need to address these concerns and ensure that our S&T and industrial development processes take into cognizance the preventive approaches and are consistent with acceptable societal norms and ethics.

Present regulations governing intellectual property rights (IPRs) as contained in the TRIPs Agreement appear to be heavily weighed against the developing world. Member countries need to adopt common positions to prevent the establishment of new forms of knowledge monopolies and ensure the protection of our traditional knowledge.

RECOMMENDATIONS

21. COMSTECH in collaboration with IDB and other international and national organisations to initiate pilot projects harnessing applications of technology for the benefit of society, in particular the underprivileged;
22. Member countries to initiate development of pilot ICT-community projects in their respective countries with possible reference to the guidelines from the National IT Strategy developed by IDB;
23. Adoption of common position on intellectual property rights issues;

EXPRESSING COMPASSION: ADDRESSING THE SPECIAL NEEDS OF THE OIC-LDCs

22 member-states of the OIC are categorised as Least Developed Countries. Their problems require special and urgent attention. Flows of international financial assistance have declined in recent years. Accordingly, Member countries can pool their resources and expertise in lending assistance to their less fortunate Muslim brethren.

RECOMMENDATIONS

24. Initiate special emergency programme to provide funding and other development assistance to address the pressing problems of the 22 LDCs, taking into consideration that S&T as a sector must be given high priority at the same time;

MAKING IT HAPPEN

RECOMMENDATIONS

25. Entrust COMSTECH with financial support of IDB and the cooperation of member countries to operationalise this Vision.
26. Establish an effective monitoring and evaluation mechanism to track the implementation and progress of the Vision and its programmes.

أكاديمية العالم الإسلامي للعلوم

أكاديمية العالم الإسلامي للعلوم مؤسسة مستقلة، غير سياسية، غير حكومية، وغير ربحية، تضم زملاء (أعضاء) مؤسسون ومنتخبون يمثلون المجتمع العلمي الإسلامي المبدع في شتى مناطق ودول العالم. تهدف الأكاديمية إلى الارتقاء بمنح العلوم والتكنولوجيا المختلفة في العالم الإسلامي.

جاء تأسيس الأكاديمية بناء على توصية تقدمت بها اللجنة الدائمة للتعاون العلمي والتكنولوجي (COMSTECH) إلى مؤتمر القمة الإسلامي الرابع، الذي عقد في الدار البيضاء عام 1984، حيث تم إقرار هذه التوصية من قبل قادة الدول.

إثر دعوة من حكومة المملكة الأردنية الهاشمية وبرعاية كريمة من صاحب السمو الملكي الأمير الحسن بن طلال، عقد المؤتمر التأسيسي للأكاديمية في شهر تشرين أول (أكتوبر) 1986، بمشاركة شخصيات بارزة من دول إسلامية مختلفة تمت دعوتهم من قبل المؤسسات المنظمة للمؤتمر ليكونوا زملاء مؤسسين للأكاديمية.

قررت الهيئة العامة للأكاديمية إعادة إطلاقها تحت اسم أكاديمية العالم الإسلامي للعلوم وذلك في اجتماعها الخامس عشر والذي عقد في كوالالمبور بماليزيا خلال شهر آذار (مارس) 2005.

أما الأهداف الرئيسية للأكاديمية فهي:

- تقديم النصح والمشورة إلى الأمة الإسلامية ومؤسسات الدول الأعضاء في منظمة المؤتمر الإسلامي، حول أمور تتعلق بالعلوم والتكنولوجيا وتطبيقاتها.
- تنفيذ برامج ونشاطات علمية وتكنولوجية، وتشجيع التعاون بين الباحثين في البلدان الإسلامية المختلفة حول مشاريع ذات أهمية مشتركة.
- تشجيع ودعم البحث العلمي حول أهم المشاكل التي تواجه البلدان الإسلامية، وتحديد التكنولوجيات المستقبلية الملائمة لغايات تنميتها واستخدامها.
- صياغة مقاييس للإنجاز والتحصيل العلمي، ومنح الجوائز والأوسمة للإنجازات العلمية المتميزة، بغية تطوير مراكز الإبداع في فروع العلوم المختلفة وتحفيز المبدعين.

نشرة أكاديمية العالم الإسلامي للعلوم

نشرة دورية تصدرها الأمانة العامة لأكاديمية العالم الإسلامي للعلوم، عمان، الأردن.

رئيس التحرير: المهندس منيف رافع الزعبي، مدير عام، أكاديمية العالم الإسلامي للعلوم.

مساعد التحرير: ليلى جلال عارف، مسؤول برامج.

ترحب لجنة التحرير بكل المقالات، وخصوصاً القصيرة منها، واللجنة الحق في تقرير مدى ملائمة المقالات المقدمة للنشر وفقاً لتعليمات الأكاديمية.

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Prof. Muhammad Iqbal Choudhary
(Pakistan)

Prof. Choudhary was born in 1959 in Karachi, Pakistan. He is a professor at the HEJ Research Institute of Chemistry, University of Karachi, Pakistan.

Prof. Choudhary obtained his PhD from the HEJ Institute - in Organic Chemistry in 1987; and his MSc degree in 1983 from the University of Karachi, Pakistan, also in Organic Chemistry. He also did his BSc degree at the University of Karachi in Chemistry, Biochemistry and Botany.

Dr Choudhary is involved in nationally important projects of academic nature including; the survey of medicinal plants in Pakistan, environmental monitoring, capacity building in Science and Technology in Pakistan, etc. He is also involved in industrial projects and currently heading the largest "Industrial Analytical Centre" of Pakistan. He is also currently the project director of the newly established "Dr Panjwani Centre for Molecular Medicines and Drug Development."

He is a Fellow of Lead-International and a member of the board of governors of Lead-Pakistan.

Prof. Choudhary is a member of the Royal Society of Chemistry, London; American Chemical Society; International Union of Pure and Applied Chemistry (IUPAC); American Society of Pharmacology; New York Academy of Sciences; Federation of Asian Chemical Societies (FACS); and a member of executive board of the Asian Network of Research on Anti - Diabetic Plants (ANRAP).

Prof. Choudhary was awarded the Tamgha-E-Imtiaz, in 1998; the Sitara-E-Imtiaz in 2001, both by the President of Pakistan. He was also awarded the Abdussalam Prize in Chemistry in 1990; and the Third World Academy of Sciences (TWAS) young chemist award in 1994.

Prof. Choudhary was elected as a Fellow of the Islamic World Academy of Sciences in 2002.



Prof. Mamadou Daffe
(Mali/France)

Prof. Daffe was born in 1957 in the city of Sofara, Mali.

He obtained his BSc in 1977, and his MD in 1979 in Biochemistry from the University Paul Sabatier, Toulouse, France.

He went on to get his PhD in Molecular and Cellular Biology in 1982 from the same university. He obtained excellence awards throughout his academic studies; Best Student of the University of Paul Sabatier, Toulouse, 1981; and the best thesis on Leprosy, Paris, 1982.

Prof. Daffe has above 15 years of research experience that focused on the characterization of Cellular Components of the Mycobacterial Envelope. Presently, he is leading one of the well-known laboratories working on the Biochemical and Structural aspects of the Cell wall in Mycobacteria.

He is often invited to deliver talks at various seminars, scientific meetings and international conferences.

He is currently Director of Research at the Institute of Pharmacology and Structural Biology (CNCS), France.

Prof. Mamadou Daffe was elected a Fellow of the IAS in 2001.



Prof. Mohamed Baha-Eldin Fayez
(Egypt)

Prof. Fayez was born on 4 February 1927, Cairo, Egypt. He obtained his PhD in Chemistry from Glasgow University (1956).

He supervised a considerable number of MSc and PhD theses, authored more than 100 research publications, and has 6 industrial inventions to his credit. One of these inventions relates to the discovery and manufacture of one of the most effective urinary tract medicines in use today.

He is a practicing scientist at the National Research Centre, and as a science and technology executive at the Egyptian Academy of Scientific Research and Technology where he was Vice-President for almost 8 years. He founded and directed Egypt's UNDP-funded "Transfer of Knowledge Through Expatriate Nationals" program, since 1980. He served a tenure as Director of the National Research Centre, NRC, Cairo, Egypt, 1984-1987, and a currently (2005) President of the Egyptian Academy of Sciences.

Prof. Fayez was awarded the Egyptian State Prize for Chemistry (1966) and the State Prize of Merit in Sciences (1990). He was awarded the 1982 Prize for Islamic Medicine by the Kuwait Foundation for the Advancement of Sciences.

Prof. Fayez played a key role in the formulation of Egypt's National Technology Policy (1984).

In 1986, Prof. Fayez was invited to become a Founding Fellow of the Islamic World Academy of Sciences.

He was the Chairman of the United Nations Intergovernmental Committee on Science and Technology for Development (New York). He served as a consultant the United Nations in the field of technology policies and technological development. Prof. Fayez is currently an Emeritus Research Professor at the National Research Centre, Cairo, Egypt.



**Prof. Samaun Samadikun
(Indonesia)**

Born on April 15, 1931 in Magetan, Indonesia, Prof. Samadikun graduated from Stanford University with an MSc (1957), and PhD (1971) in Electrical Engineering. He also obtained a Postgraduate Diploma in Nuclear Engineering from Queen Mary College, London University (1960).

He started out as a lecturer at the Electrical Engineering Department, Bandung Institute of Technology Bandung, Indonesia (1957), and became professor of Electronics in 1974. While at the university, he was appointed Chairman of the Electrical Engineering Department (1964-1967), and the first Director of the Inter-University Centre for Microelectronics (1984-1989).

He is the author and co-author of a number of national and international publications on electronics and nuclear instrumentation.

Prof. Samaun Samadikun took up appointment within the central government; as Director General of Energy, Ministry of Mining and Energy (1978-1983), and as Chairman of the Indonesian Institute of Sciences (LIPI), (1989-1995).

He is a member of Indonesian Engineers Association. He was also awarded the National Scientific Citation Medal (1978), and the Mahaputra Utama Medal (1995) by the Government of Indonesia. He was also honoured with the 1998 Award of the Association of South Eastern Asian Nations (ASEAN), in recognition of his meritorious service to science and technology.

Prof. Samadikun is a Founding Fellow of the Islamic World Academy of Sciences (1986), and Founding Fellow of the Indonesian Academy of Sciences.

Islamic World Academy of Sciences (IAS)

The IAS is an independent, non-political, non-government and non-profit making organisation of distinguished scientists and technologists dedicated to the promotion of all aspects of science and technology in the Islamic world.

The establishment of the Islamic World Academy of Sciences was recommended by the Organisation of the Islamic Conference Standing Committee on Scientific and Technological Co-operation (COMSTECH), and subsequently approved by the Fourth Islamic Summit held at Casablanca in 1984. The Founding Conference of the Academy was held in Jordan in October 1986.

The government of Jordan hosts the IAS at Amman where the headquarters of the Academy started functioning in 1987.

The General Assembly of the Academy decided to relaunch the IAS as the Islamic World Academy of Sciences in March 2005

The main objectives of the Academy are:

- *To serve as a consultative organisations of the Islamic Ummah and institutions in the field of science and technology;*
- *To initiate science and technology programmes and formulate standards of scientific performance;*
- *To promote research on major problems facing Islamic countries and to identify future technologies of relevance for possible adoption and utilisation; and*
- *To formulate standards of scientific performance and attainment, and to award prizes and honours for outstanding scientific achievements to centres of excellence in all science and technology disciplines.*

IAS Newsletter

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The Editorial Board welcomes all articles, particularly short ones, and would consider the appropriateness of any material submitted for publication in accordance with IAS's own regulations.

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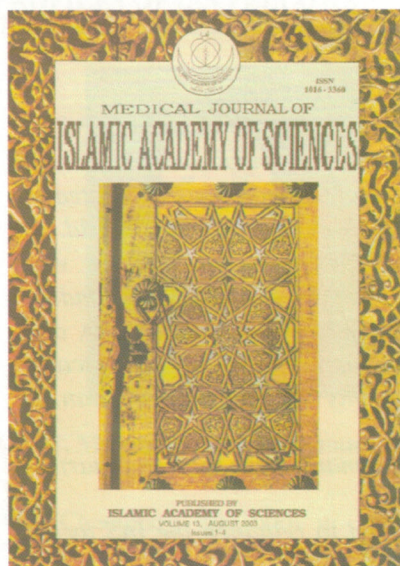
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New issue of IAS Journal on the web

The Medical Journal of the Islamic World Academy of Sciences is one of the IAS's main publications. Originally launched as a general science journal, it was recently re-launched as a specialised refereed medical publication.

The journal, which is edited and published by Prof. Naci Bor - IAS Fellow from Turkey - receives medical articles from many OIC countries as well as from scientists who are based in Europe and America.

The journal is published in both paper and electronic formats and has built up a wide readership since it was established in 1987.

The current issue of the Journal that appears on the web is Volume 15, Number 1. It carries Four major articles; a Tissue Engineering article by A. Ruzsyzmah B. Hj. Idrus, K. H. Chua, Munirah Sha'ban Nur Adelina Ahmad Noruddin, and Aminuddin B. Saim; an Anesthesiology article by Mohammad Reza Safavi, Omid Aghadavoudi, Hassanali Soltani, Sayed-Jalal Hashemi, Alireza Dehghani, and Hossein Mahjobi; a Gynecology article by Sariyeh Golmahammad Iou, Mehdi Eskandari, Atosa Dabiri; and a Biochemistry article by T. Karaca, R. Baskaya, and A. Yildiz.

The Journal's web address is www.medicaljournal-ias.org

The Journal's web page can also be viewed through a hyper-link through the Academy's web page.

The Journal's chief editor can be reached at the following address:

Prof. Naci Bor, Mithatpasa
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Muslim Scholars



ALI IBN RABBAN AL-TABARI (838-870 AD)

This accomplished Hakim was the tutor of the unparalleled physician Zakariya al-Razi. Luck favoured the disciple more than the teacher in terms of celebrity, it seems. As compared to Razi, people know very little about his teacher Al-Tabari.

Ali Bin Rabban's forename was Abu al-Hassan, the full name being Abu al-Hassan Ali Ibn Sahl Ibn Rabban al-Tabari. Born in 838 AD, his father Sahl hailed from a respectable Jewish family. The nobility and sympathy inherent in his very nature soon endeared him to his countrymen so much so that they used to call him Rabban which implies "my leader."

Professionally Sahl was an extremely successful physician. He had command over the art of calligraphy too. Besides, he had a deep insight into the disciplines of Astronomy, Philosophy, Mathematics and Literature. Some complicated articles of Batlemus's book *al-Mijasti* came to be resolved by way of Sahl's scholarly expertise. Translators preceding him had failed to solve the mystery.

Ali received his education in the disciplines of Medical science and calligraphy from his able father Sahl and attained perfection in these fields. He had also mastered Syriac and Greek languages to a high degree of proficiency.

Although Ali hailed from an Israelite family, he had embraced Islam, and thus he is classified amongst Muslim Scholars. His family belonged to Tabristan's famous city Marv.

The fame acquired by Ali Ibn Rabban did not simply account for the reason that a physician of the stature of Zakariya al-Razi was amongst his disciples. In fact, the main cause behind his exaltation lies in his world-renowned treatise *Firdous al-Hikmat*.

Spread over seven parts, *Firdous al-Hikmat* is the first ever medical encyclopaedia which incorporates all the branches of medical science in its folds. This work has been published in the last century (twentieth century) only. Prior to that, it used to be found scattered in libraries the world over. Dr. Mohammed Zubair Siddiqui compared and edited the manuscripts. In his preface he has provided extremely useful information regarding the book and the author and, wherever necessary, explanatory notes have been written to facilitate publication of this work to modern publishing standards.

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