and waste management, stricter laws and punishments for those who harm the environment, and practical/ethical guidelines for medical practitioners and bioscience researchers to implement in their everyday practices so as to ensure a balanced, productive, and healthy society. Overall, the conference was a beneficial and enlightening experience which has set the stage for further research for academicians and practitioners on how to facilitate progress and remedies in the Muslim world regarding its scientific heritage and current practices. In the meantime, IAIS will be busy preparing the Conference Proceedings volume to ensure that the many excellent ideas provided in the papers presented receive a wider more international exposure.

International Summer School on Islam and Science
(Paris, 22-31 August 2014)

Daud AbdulFattah Batchelor, IAIS Malaysia

An excellent program on Islam and Science was co-organised by Professors Nidhal Guessoum and Jean Staune (Director, Universite Interdisciplinaire de Paris) in Paris for 21 Muslim ‘students’ from universities and institutions in Algeria, Egypt, Jordan, France, the United Arab Emirates, the United States and the United Kingdom, Indonesia and Malaysia. Professorial lectures were delivered by prominent Muslim scientists/engineers/religious scholars – Nidhal Guessoum (American University of Sharjah, UAE), Ehab Abouheif (McGill University, Canada), Bruno Guiderdoni (Islamic Institute of Advanced Studies in Paris), Odeh Jayyousi (Jordan), Usama Hasan (Quilliam Foundation, UK) and leading Christian scientists – Philip Clayton (Claremont School of Theology, USA), Denis Alexander (Faraday Institute, Cambridge, UK) and Jean Staune. This was a cutting edge program on the state of thinking on critical issues regarding Religion and Science. To support the training, group visits were made to the impressive institutions of the Museum National d’Histoire Naturelle and the Cite des Sciences et de l’Industrie, as well as to the Central Paris Masjid. The program was not all scientific as participants were also treated socially to warm French hospitality and delicious cuisine for their lunches and dinners.

The objective of the school was to train participants on how to address questions of Islam/Religion and Science and to move the discourse beyond *i jaz* (suggested miraculous aspects of science in the Qur’an) and simplistic understandings of belief and science. Professor Nidhal Guessoum outlined four main schools of thought on Islam and science: (1) Sacred Islamic Science (Syyed Hossein Nasr and followers) (2) Ethical Islamic Science (Ziauddin Sardar), (3) Universal Science (Mohammad...
Abdus-Salam), (4) *Ijaz* (Bucaille, El Naggar), and a new breed of intellectuals including Mehdi Golshani (Theistic Islamic Science), Guessoum (Averroesian Harmony), Zainal Abidin Bagir (Indonesia) and Adi Setia (Malaysia). Seven main issues related to the Islam and Science nexus were identified by Guessoum: (1) Evolution; (2) Cosmology; (3) Miracles, laws of nature, divine action; (4) *Ijaz*: science in the Qur’an?; (5) Are there “proofs” for religious claims? Is God’s existence provable? (6) Is any scientific knowledge certain? Are there immutable facts?; and (7) Where does ‘authority’ reside in scientific knowledge?

One position of some religious writers is controversial and seems to negate God’s role in the planning and design of His creation of the universe (or multi-universes), as if there was another agent (beside God), or that the processes of change are operating independently with their own will. They believe that the intelligent design (ID) hypothesis is presented by people only to negate Darwinian evolution. I myself could consider the likelihood that both concepts can coexist (for example, that natural selection is part of intelligent design). As a simplistic description I propose, God is existent in the beginning (*Al-‘Awwal*) and at the end (*Al-‘Akhir*) being in multi-time dimensions as the Master of Time. He develops the natural laws and constants that can be set at the beginning to ensure the desired outcomes occur (continuously) and at the end of time, much as a production engineer in a factory will set the initial parameters and processes to ensure the correct quality of the desired manufactured goods (a crude example for want of a better one). This approach can also accommodate the Ash’arite doctrine that God is present at every moment recreating His creation, but not necessarily altering His laws and constants, which are relatively fixed to provide the natural world and humans with confidence (as part of His Mercy) in the dynamic laws of the earth and the universal functions (at least at a human level), except when miracles are evidenced through divine change in His (otherwise) perennial laws. God may also operate at a subatomic level to bring about change undetected at the human conscious level.

Bruno Guiderdoni provided an overview on the role of scientists, the scientific method, and the two books provided by God for mankind to examine – *Kitab al-Tadwin* (divine revelations) and *Kitab al-Takwin* (natural phenomena). He compared the approach of Imam Ghazali and of Ibn Rushd towards Truth and the necessity that *‘aql* (rational thinking) does not contradict *naqīl* (revelations). He considered the big religion/science current issues – The Big Bang theory, pre-Big-Bang cosmology and eternity/temporal origination; Creation through time; and Fine-tuning. It is important to realise that God’s decree *kun fayakun* results in evolution unfolding over time, not an instantaneous creation. Resources for studying science and Islam include: *kalam*, *falsafah* and sufi/akbarian doctrine (i.e. world as *tajaliyyāt ilāhiyyah*); lessons of the new history of science (including new evaluation of Arab-Islamic contributions); post-modern conceptions of
science (Popper/Kuhn/Feyerabend and their critiques); and new paradigms (e.g. non-reductionism, emergence).

Ehab Abouheif gave a masterful demonstration of some proofs of evolution – from the genetic make-up of ants, to how the same gene in disparate animal groups (including humans) is responsible for eye development indicating the unity of living matter. Biological evolution is the descent with modification of all organisms from common ancestors. It is deemed by him a fact while evolutionary theories are hypotheses that are used to try to explain how biological evolution occurred, and are still being tested as to which are correct. He stated “There is abundant scientific evidence supporting the fact that humans are related to and share a common ancestor with animals.” Like Bruno Guiderdoni he believes that it is the breathing in of the spirit (ruh; refer to Qur’an 38:71-72) that makes us distinctly human and different from animals.

Philip Clayton gave two talks providing a broad coverage on religion and science issues – “On the Main Questions and Hot Debates in the English Speaking world” and “How to Teach the Controversies.” He identified the hot debates as (1) Intelligent design, (2) fine-tuning versus multiverse theory, (3) Evolution versus Creation, (4) Divine action – how does God act in this world? (5) Emergence and complexity in the life sciences, and (6) Consciousness and Mind, and provided insightful suggestions for approaching the issues positively and resolving them leaving prejudices and presumptions aside. He shared his vision that “Muslims, Jews and Christians each do their own ‘creative mutual interaction’ with scientific knowledge without a loss of the distinctive features of their own traditions – each practices a generous orthodoxy in our interactions with sciences without giving up the heart of our faith.” “We learn to be attentive listeners and learners from the work in other traditions even though we disagree with some conclusions and assumptions. We therefore support growth in spiritual knowledge in the spirit of “humility theology.”

Denis Alexander spoke on “Why Science and Faith are so Separate in the Western World?” He discussed the seminal contributions of British scholars from the 17th century onwards in natural theology, and that Charles Darwin was a product of this school, although in his later years he seemed to turn agnostic. Alexander argued that it was the professionalism of scientific studies at the end of the 19th century (taking over from religious scholars) that led to a separation of religion and science, which had previously been studied together. He also spoke on “Ethical Challenges Arising from Contemporary Biology” including latest developments in stem cell research. Challenges he enumerated include: (1) destruction of early embryos and use of foetal tissues, (2) egg donation for somatic cell nuclear transfers, (3) use of ‘saviour siblings’, (4) should use of stem cells be patent-protected, and (5) what risks are acceptable?
Jamal Mimouni spoke about *i’jaz* and the abuse of science with respect to propositions of many so-called scientific miracles in the Qur’an. *I’jaz* as used currently was defined by Guessoum as the claim that the Qur’an contains scientific content which was unknown previously, which can only be understood today in the light of modern knowledge. The corollary is that one can find scientific facts ahead of time by looking at the Qur’an with an open mind thus establishing miraculosity of the Qur’an. Mimouni believed the ‘*i’jaz* industry’ had become too ideological rather than aiming for a coherent dispassionate presentation of evidence. He provided criteria to ensure coherence of proofs and arguments about matching scientific facts with Qur’anic statements and believed there was no unequivocal proof of God presenting new scientific information in the Qur’an. This latter position is perhaps questionable though in a few cases in view of acceptance by many scientists that God is referring to the Big Bang in al-Qur’an 21:30 and to demonstrable stages of development in the human embryo and foetus in 23: 12-14, as explicated by Keith Moore. It would seem the Big Bang theory still satisfies the physical evidence available while opposing multiverse and string theories are highly speculative. It is also probable some such theories have been proposed to counter a theory (Big Bang) that many religious people, Christians and Muslims, believe points to the primal Act of the Creator. It seems imperative that scientists develop a methodology for establishing the relative certainty or uncertainty of theories to direct the lay person to those having a higher probability of being correct. Otherwise, in fields such as astrophysics, a non-specialist would likely be quite confused with the great proliferation of current theories.

Usama Hasan in two talks provided background on Islamic ethics and on some of the seminal debates between Muslim philosophers such as Abu Hamid Ghazali and Ibn Rushd, on the nature of cause and effect and other controversies touching on miracles (including the fire being cooled for Prophet Ibrahim) and how God’s will is done in the world. He also highlighted the many areas where an incorrect understanding of natural phenomena had been made through misinterpreting Qur’anic verses and hadith. He discussed about *maqasid al-shariah* and *maslahah*, and cited Imam Ibn al-Qayyim’s (d. 751/1351) seminal statements that “The Islamic Law is all about wisdom and achieving people’s welfare in this life and the afterlife. It is all about justice, mercy, wisdom, and good. Thus, any ruling that replaces justice with injustice, mercy with its opposite, common good with mischief, or wisdom with nonsense, is a ruling that does not belong to the Islamic Law, even if it is claimed to be so according to some interpretation” and that fatwas (legal rulings) can and must change according to time, place and context. Imam Ghazali had stressed the essentiality of properly understanding the context of Qur’anic revelations in their interpretation rather than following a purely literal approach.
Jean Staune spoke on answering frequently-asked questions about religion and evolution. He discussed the difference between Intelligent Design and Fine Tuning, and whether the existence of chance in evolution is compatible with the existence of God. Einstein, a believer had surmised that “chance is the tool that God uses when He wants to be incognito” although to us it appears as happenstance. Qur’anic references to the creation of man from clay is backed up by experimental evidence that self-replication can occur in clay crystals. Jean on evolution discussed the similarity of the chromosomal makeup of apes and men, where chromosomes 2 and 3 of apes fuse to become chromosome 2 of men. This is not to suggest that men descended from apes but that apes and men have a common ancestor. Jean suggested non-Darwinian ways in which evolution in life may have occurred citing “structuralism” and “Lamarckian” evolution. The German writer, Johann Wolfgang von Goethe, believed by some to have been a Muslim, proposed that flowers had developed from leaves, which has modern evidence to support it. Jean preferred a “God of evolution” rather than of “Intelligent design” although Guessoum and myself can contemplate a co-existence of these two processes in God’s creation. He cited Simon Conway Morris that we should explore evolution through the laws of nature and not only through ‘Selection’. Another of his concepts was that of “Attractor” whereby evolutionary trajectories are channelled into modes of stable functionalities. The latest word on teleology is found in the tome of *Incomplete Nature* by Terrence Deacon.

Odeh Al-Jayyoushi gave two talks – on Islam and the environment, and on Islam and critical thinking. He believed that humans have an important role to build sustainable cities which follows from understanding the Islamic concept of *hayat al-tayyibah*. He spoke well on environmental ethics and the expansive ecological view of the Qur’an while commenting that although man has been created as a guardian and witness, there has been relatively little Islamic discourse in the environmental debate. With the Enlightenment there was a radical shift in the West from the Divine to focus on humankind with a concomitant separation between science and religion and alienation between man and nature, which is only now being partly rectified. However, he believed the current global economy based on the Western worldview is failing people, nature and economic development. There is a continuing loss of natural capital as the carrying capacity of the earth is exceeded, which affects sustainability of ecological systems for future generations. There are issues between wealthy countries and developing countries – between rights and needs. Muslims have a key role to play. Important Islamic principles on environmental management include conservation, balance, social responsibility, shared water resources, wise consumption (Qur’an 7:31) and innovative *ijtihad*, among others. There is work to be done for Muslim thinkers to review Islamic legal theory and the *maqasid al-shari’a* to develop a sustainability science.
Overall, the school was well organised and highly stimulating for one such as myself who embraced Islam many years before from the standpoint of a scientist who regained his faith in God on being directed to Qur’anic verses calling man to ponder on the nature and intelligent purposes of His creations in the universe.

Notes
3. “Natural theology” is the use of science to demonstrate the power and wisdom of God.

**Shariah Governance Framework in Islamic Finance**  
**(Kuala Lumpur, 10 September 2014,)**

*Sheila Ainon Yussof, IAIS Malaysia*

On 10 September, 2014 three Research Fellows from IAIS Malaysia (Sheila Ainon, Tawfique, Ahmad Badri) participated in Islamic Banking and Finance Institute Malaysia (IBFIM)’s Continuous Professional Development (CPD) program relating to a highly relevant topic “The Shari‘ah Framework and Governance in Islamic Finance”. This course is designed to provide participants with a comprehensive understanding of shari‘ah compliance and the practical application of the Shari‘ah Governance Framework (SGF 2011) for Islamic financial institutions (IFIs).

The two day course started off with corporate governance in IFIs and the regulatory framework of shari‘ah governance provided by SGF 2011, which is said to undergo a revision next year. Different models of shari‘ah governance were highlighted namely the centralised, “laissez faire” and hybrid. The government of Malaysia regulates shari‘ah advisory based on a centralised SG model with the following features: shari‘ah advisory at the regulator’s level; centralised fatwa; the SAC issues guidelines on the governance of SC for IFIs; a centralised appointment of SC which conducts shar‘iah compliance review. The trainer