Healthcare politics shuts down US federal government

How does a government shutdown? In the USA, when Congress fails to pass legislation (‘continuing resolution’) that funds government agencies and operations, the Constitution requires the federal government to ‘shutdown’ affected activities and furlough ‘non-essential’ personnel. This happened from 1 to 16 October 2013, primarily due to a dispute between Republicans and Democrats (the two political parties) relating to the healthcare act, Patient Protection and Affordable Care Act (‘Obamacare’). This Act was enacted into law in 2010, but many provisions are taking effect now. Although this was the 18th occasion of a funding gap since the US Budget Law of 1974, it was the 12th shutdown, since funding gaps did not lead to shutdowns before 1980, when the then President Carter opined that the government should shut down if the Congress does not pay for its functioning. This 16-day-long shutdown was the third-longest in US history, after the 21-day shutdown in 1995–96 and the 18-day shutdown in 1978.

Hardline Republicans were able to sway their party colleagues to hawkishly oppose the start of certain provisions of the healthcare law. The Republican-led House of Representatives offered continuing resolutions that had conditions which would delay or defund Obamacare, whereas the Democrat-led Senate passed several amended resolutions removing these conditions. Political fights over this and other issues, with the House on one side, and the President and Senate on the other, resulted in an impasse and a budget was not passed in a timely manner. This resulted in lack of funding and the government shutdown. Many observers felt that the Republicans were unnecessarily holding Obamacare hostage to fund the government. Much of the Affordable Care Act is funded by previously authorized and mandatory spending, rather than discretionary spending, and the presence or lack of a continuing resolution did not affect it. The shutdown ended when an interim bill to fund federal agencies through 15 January 2014, passed by both the House and the Senate, and was signed into law on 17 October 2013.

During the October 2013 shutdown, approximately 800 000 federal employees were indefinitely furloughed (asked not to report to work) whereas another 1.3 million were required to report to work without known payment dates. Eventually, however, no one lost pay since Congress enacted that they be paid retrospectively. Critics were quick to point out that this was basically equivalent to a paid vacation for government workers. Politically speaking, the Republicans lost ground in many opinion polls, due to their stance leading to the shutdown.

HARESH MANI, USA

Elucidation of cellular transport mechanisms awarded
2013 Nobel Prize in Medicine/Physiology

On 7 October 2013, the Nobel Committee announced the 2013 Nobel Prize in Physiology or Medicine to three individuals involved in our understanding of how cells mobilize distinct components within and among cells. The awardees were Drs James E. Rothman (Yale, USA), Randy W. Schekman (Berkeley, USA) and Thomas C. Südhof (Stanford, USA).

Vesicles are the cargo containers that cells use to transport materials such as proteins (like insulin) and peptides (like neurotransmitters). Their regulation and transport is a critical function of cells with vast medical applications. Dr Schekman identified the genes responsible for moving vesicles throughout cells, and more importantly, showed that these genes were necessary for life using a yeast cellular model system.

Vesicles move cargo within, but also between, cells and their environment. For example, given the correct signals, brain cells or neurons release chemicals into the environment triggering a chain reaction of brain activity. Dr Rothman identified the protein complexes, ‘SNARE proteins’, responsible for accurate docking of vesicles to the cell wall. This understanding was enhanced by Dr Südhof’s work—his group elucidated that internal cellular signals facilitate the release of vesicles at the correct time.

The complexity of cellular transport mechanisms is of great biomedical significance. Scientists who have focused on this have been recognized by the Nobel Committee for decades: Drs Kornberg (1959); Drs Katz, von Euler and Axelrod (1970); Drs Claude, Palade and de Duve (1974); and Dr Blobel (1999).

The relevance of this work spans many areas of medicine and beyond. The now popular ‘botox’ is a derivative of botulinum toxin, which specifically targets cellular release of a neurotransmitter called acetylcholine, required for muscle contraction. Neurological, endocrine, immunological and many other physiological processes and disease mechanisms involve this fascinating system.

PAMELA LIAO, Toronto, Ontario, Canada

Supreme Court orders highest ever compensation in case of medical negligence

On 24 October 2013, the Supreme Court of India, in a 210-page judgment ordered the Advanced Medicare and Research Institute (AMRI), Kolkata and three senior Kolkata-based doctors, to pay ₹5.96 crore along with interest to Dr Kunal Saha, an AIDS researcher in Ohio, USA. Dr Saha’s wife, Dr Anuradha Saha, had died due to alleged medical negligence during their visit to India in 1998.

Anuradha Saha, a child psychologist, had come to her hometown Kolkata in March 1998 on a visit. She had complained of skin rashes and on 25 April 1998, was prescribed depomedrol injection 80 mg twice a day. Her condition deteriorated rapidly, following which, she was admitted to AMRI under the care of three other doctors. As Dr Anuradha Saha’s condition failed to improve, she was flown to Breach Candy Hospital, Mumbai, where she was found to be suffering from toxic epidermal necrolysis, a rare and life-threatening skin condition. She died there on 28 May 1998.

Dr Kunal Saha filed a criminal and a civil case against the
doctors and both the hospitals on the grounds that they were grossly negligent in their treatment leading to her death. In 2009, the apex court absolved the doctors and the hospitals of criminal liability for medical negligence, but held the doctors and AMRI culpable of civil liabilities and referred Dr Kunal Saha’s plea for compensation under the Consumer Protection Act to the National Consumer Disputes Redressal Commission (NCDRC), which, in 2006, had dismissed the case. After the NCDRC judgment, Dr Saha had again moved the Supreme Court and the three doctors had also filed an appeal before it.

Redirected by the Supreme Court, the NCDRC on 21 October settled on ₹1.7 crore, but Dr Saha appealed against that. A bench of Justices C.K. Prasad and V. Gopala Gowda raised the compensation amount to ₹5.96 crore. AMRI and the doctors have to pay the amount within eight weeks along with interest at the rate of 6% from the date of filing of the case in 2009.

One of the four treating doctors died during the pendency of case.

Terming the verdict as ‘historic’, Dr Kunal Saha, who founded People for Better Treatment to fight against medical negligence, stated that the verdict would have a major impact on medical negligence and standard of medical care in India. ‘Today’s verdict is also likely to increase the value of every human life in India’, he said.

The bench said that its decision would act as a deterrent to people associated with the practice of medicine and who do not take their responsibility seriously. They added: ‘The doctors, hospitals, the nursing homes and other connected establishments are to be dealt with strictly if they are found to be negligent with the patients who come to them pawning all their money with the hope to live a better life with dignity … The patients irrespective of their social, cultural and economic background are entitled to be treated with dignity which not only forms their fundamental right but also their human right. We, therefore, hope and trust that this decision acts as a deterrent and a reminder to those doctors, hospitals, nursing homes and other connected establishments who do not take their responsibility seriously, … The Central and the state governments may consider enacting laws wherever there is absence of one for effective functioning of private hospitals and nursing homes. Since the conduct of doctors is already regulated by the Medical Council of India, we hope and trust for impartial and strict scrutiny from the body.’

P.M. NISCHAL, Bengaluru, Karnataka

Mozart may prevent heart transplant rejection: Discovery wins Harvard University’s Ig Nobel 2013 prize in Medicine

The Ig Nobel Awards is a programme administered through Harvard University to acknowledge novel and innovative discoveries in science that ‘first make people laugh and then make them think’.

The Ig Nobel Prize in Medicine for 2013 was awarded to a Japanese team led by Dr Masanori Niimi, Department of Surgery, Juntendo University. Their study involved exposing heart-transplanted mice to classical, opera, new age or a single-sound frequency music pre-heart transplant. Their results showed that opera and classical music exposure resulted in prolonged transplant survival (Uchiyama M, Jin X, Zhang Q, Hirai T, Amano A, Bashuda H, et al. Auditory stimulation of opera music induced prolongation of murine cardiac allograft survival and maintained generation of regulatory CD4+CD25+ cells. J Cardiothorac Surg 2012;7:26).

Even more dramatically, when spleen cells were transferred from opera-exposed to control mice it resulted in prolongation of the survival of heart transplants in the recipient mice. Cell cytology studies showed that opera-exposed mice had an increase in anti-inflammatory cytokines, which provided a possible mechanism for the study’s results.

To view footage of the ceremonies, please see www.improbable.com.

PAMELA LIAO, Toronto, Ontario, Canada

Cell phones may not be unsafe, rules WHO

There has been much interest and controversy in recent times on the widespread use of mobile phones and their alleged side-effects. A recent statement by the French government agency ANSES (Agence Nationale De Securite Sanitaire—French Organization for Food, Environmental and Occupational Health and Safety) and studies by the WHO addressed this issue.

The advisory issued by the WHO in October 2013 relies on studies done up to the end of 2012 which have been unable to show a definite correlation between environmental exposure to radiofrequency fields and significant alterations in brain activity, sleep patterns, reaction times and an increased risk of cancer. It states that there is no evidence to support a review of current exposure limits to electromagnetic radiation.

However, since some studies suggest biological effects may be different in humans as compared to animals used in experimental models and that a possible duration-related increased risk of brain tumour may exist for heavy users of mobile phones, ANSES recommends limiting the population’s exposure to radiofrequencies and controlling the overall exposure that results from relay antennas. It suggests measures such as moderate use of mobile phones, ideally with hands-free kits and mobile terminals with the lowest specific absorption rates, especially for children and intensive users.

The verdict comes as a shot in the arm for the beleaguered Cellular Operators Association of India which has been under increasing fire from activists and non-governmental organizations to propose new exposure limits for the general population on health grounds.

MAHARRA HUSSAIN, Mumbai, Maharashtra