

NEW DRUG FOR SLE

Belimumab (trade name Benlysta) is the first drug to be approved for treatment in SLE after a long 56 years. Industry analysts expect it to be a blockbuster. The FDA recently approved it by a 13 to 2 vote. The story of its discovery is interesting.

In 1996, Human Genome Sciences discovered a new molecule called B lymphocyte stimulator (BLyS). Normally B cells which produce autoantibodies are cleared off by induction of apoptosis. In SLE the B Lymphocyte stimulator allows these cells to mature and continue producing autoantibodies. The levels of B Lymphocyte stimulator in SLE are greatly elevated. Belimumab is a human monoclonal antibody against B lymphocyte stimulator. It blocks the activity of BLyS and allows autoantibody producing B cells to undergo natural process of apoptosis.

Two double-blind, placebo-controlled, multi-center Phase 3 superiority trials – BLISS-52 and BLISS-76 were recently concluded to assess efficacy and safety of Belimumab. More than 1600 patients in 32 countries participated in the trials. Patients treated with Benlysta and standard therapies experienced less disease activity than those who received a placebo and standard of care medicines.

SLE is the prototype autoimmune disease and hence advances in its therapy will change the way we think and treat many diseases where our immunological system has gone astray. (*The Lancet* 26 February 2011:377: 721-31.9 March 2011)

IMMUNIZING COWS TO PREVENT CHILDHOOD SEPSIS

Alan Cross, Professor in the University of Maryland has come up with an entirely original and fascinating idea to combat sepsis in malnourished children. Seven years ago he published the phase I clinical trials of a successful vaccine against sepsis. Next he vaccinated dairy cows with it. The colostrums which

they produced was rich in antibodies against toxins produced by gram negative bacteria such as *E Coli*. During the nutritional rehabilitation of malnourished children, sepsis often retards progress. The vaccine aims to prevent gut derived bacteremias and so may also be of value in patients with burns and trauma. Immunizing cows is common and inexpensive and will be much cheaper than vaccinating humans or treating sepsis with antibiotics. (*Scientific American* 31 January 2011)

EUTHANASIA GUIDELINES

The Supreme Court has laid down guidelines for the use of euthanasia in extreme circumstances even as the judges rejected a plea by Ms Pinki Virani to withdraw life support from Aruna Shaunbaug, a nurse who has been in a persistently vegetative state in KEM Hospital Mumbai for the last 37 years. India joins a handful of countries including Luxembourg, Netherlands, Belgium, Switzerland and the USA who allow some form of euthanasia. These guidelines will be legally binding until the parliament passes some legislation.

The Supreme court has allowed “passive mercy killing” of a patient in a permanent vegetative state (PVS) by withdrawing the life support system with the approval of a medical board and on the directions of the High Court concerned. A decision has to be taken to discontinue life support [to a patient in PVS] either by the parents or the spouse or other close relatives, or in the absence of any of them, such a decision can be taken even by a person or a body of persons acting as a next friend. It can also be taken by the doctors attending the patient. However, the decision should be taken bona fide in the best interest of the patient. “Active euthanasia” where life ending drugs are given remains illegal. “Euthanasia is one of the most perplexing issues” said the panel. “We fell like a ship in an uncharted sea”. (*The Hindu* 7 March 2011).

Gouri Rao Passi,
gouripassi@hotmail.com