Bats inspire 'micro air vehicle' designs



By exploring how creatures in nature are able to fly by flapping their wings, Virginia Tech researchers hope to apply that knowledge toward designing small flying vehicles known as "micro air vehicles" with flapping wings.

In Virginia Tech's study of fruit bat wings, the researchers used experimental measurements of the movements of the bats' wings in real flight, and then used analysis software to see the direct relationship between wing motion and airflow around the bat wing. They report their findings in the journal *Physics of Fluids*.

To give you an idea of the size of a fruit bat, it weighs roughly 30 grams and a single fully extended wing is about 17 x 9 cm in length, according to Tafti.

Among the biggest surprises in store for the researchers was how bat wings manipulated the wing motion with correct timing to maximise the forces generated by the wing.

Caesarean babies more likely to become overweight as adults, analysis finds



Babies born by caesarean section are more likely to be overweight or obese as adults, according to a new analysis. The odds of being overweight or obese are 26 per cent higher for adults born by caesarean section than those born by vaginal delivery, the study found.

The finding, reported in the journal PLOS ONE, is based on combined data from 15 studies with over 38,000 participants from 10 countries.

The researchers, from Imperial College London, say there are good reasons why many women should have a C-section, but mothers choosing a caesarean should be aware that there might be long-term consequences for their children.

Around one in three to four births in England are by caesarean section, around twice as many as in 1990. In some countries, the rate is much higher, with 60 per cent of mothers in China and almost half in Brazil having the procedure.

Professor Neena Modi from the Department of Medicine at Imperial College London, the report's senior author, wrote: "...we need to understand the long-term outcomes of C-section in order to provide the best advice to women who are considering caesarean delivery."