ANTHROPOLOGY NEWS DIARY (AND)

07.10.2021

FOR UPSC CSE MAINS

This series provides compilation of daily CURRENT AFFAIRS of Anthropology. It is aimed at addressing the requirement of aspirants to add contemporary aspects of the subject to the answers. It also helps in understanding the trends of anthropology across India and the world.

NOTE: Please attempt the questions given at the end of the document and can upload on the telegram channel: Sosin for Anthropology Q&A, for peer review.
INDEX

A. BIOLOGICAL ANTHROPOLOGY
1. Dementia .......................................................................................................................... 03
2. Human & Mouse Brains ...................................................................................................... 03
3. Dengue Vaccine Failure ................................................................................................... 04

B. TRIBAL AFFAIRS
1. Hun Festival ..................................................................................................................... 05
2. Irular Tribes ..................................................................................................................... 06

UPSC ANTHROPOLOGY PREVIOUS YEAR QUESTIONS ....................................................... 06
PRACTICE QUESTIONS FOR PEER REVIEW ........................................................................ 06

Note - For convenience, the respective reference links have been dropped at
the end of every topic.
A. BIOLOGICAL ANTHROPOLOGY

1. Dementia
   
   **Context:**
   Researchers have built and validated an online calculator that empowers individuals 55 and over to better understand the health of their brain and how they can reduce their risk of being diagnosed with dementia in the next five years.

   **Highlights:**
   - Dementia is an umbrella term for loss of memory and other thinking abilities severe enough to interfere with daily life.
   - There is no cure or treatment for dementia. However, about a third of dementia may be preventable through lifestyle factors like physical activity, healthy eating, reducing alcohol and tobacco use, and managing conditions like diabetes and high blood pressure.
   - The researchers based the dementia calculator on survey data from over 75,000 Ontarians.
   - The calculator can be used by individuals to assess their dementia risk and help them modify their lifestyle. The researchers also have a goal for policy makers to use this algorithm to do the same thing for the general population.
   - Through this research, the team has developed the first predictive tool designed to predict dementia at a population level.
   - It can predict the number of new cases in the community, identify higher-risk populations, inform dementia prevention strategies, and will be used to support Canada's national dementia strategy.
   - By using regularly collected health data and surveys, population health experts have all the information they need to use the algorithm.
   - The dementia calculator will be added to a list of existing calculators on Project Big Life that help Canadians estimate their own life expectancy based on habits and lifestyle choices.

   **Reference:**
   [https://www.sciencedaily.com/releases/2021/06/210625100520.htm](https://www.sciencedaily.com/releases/2021/06/210625100520.htm)

2. Human & Mouse Brains
   
   **Context:**
   A study comparing brain cells known as astrocytes in humans and mice found that mouse astrocytes are more resilient to oxidative stress, a damaging imbalance that is a mechanism behind many neurological disorders.

   **Highlights:**
   - Although the mouse is a ubiquitous laboratory model used in research for neurological diseases, results from studies in mice are not always applicable to humans.
   - In fact, more than 90% of drug candidates that show preclinical promise for neurological disorders ultimately fail when tested in humans, in part due to a dearth of knowledge about the differences in astrocytes and other brain cells between the two species.
   - Astrocytes are crucial to the development and function of the brain, and they play a substantial role in neurological disorders that, nonetheless, are not fully understood.
   - Injury or infection causes astrocytes to go from a resting to reactive state in which they can aid in repairing the brain but can also increase detrimental inflammation.
• The scientists studied developing cells purified from mouse and human brain tissue, as well as cells grown in serum-free cultures from astrocytes selected using an antibody-based method developed by the study's corresponding author.

• This technique was necessary because the conventional method of selecting astrocytes by growing them in serum -- a mixture of proteins, hormones, fats and minerals -- throws them into a reactive state similar to that caused by infection or injury.

• Because mouse astrocytes stand up to oxidative stress better, the authors suggest that laboratory models for neurodegeneration could be engineered to lessen that resistance, rendering them more human-like.

• In addition, the mouse astrocyte's facility for repair in response to lack of oxygen may suggest a new avenue of stroke research. And neuroscientists can take a more informed approach to preclinical studies by accounting for differences in response to inflammation between mouse and human astrocytes, as well as metabolic differences identified in the study.

Reference:
https://www.sciencedaily.com/releases/2021/06/210625173158.htm

3. Dengue Vaccine Failure

Context:
Researchers discovered that a small subpopulation of antibodies binding to unique sites on each serotype are linked to protection. The research provides important information for vaccine developers to consider when creating a dengue vaccine, which has long eluded scientists.

Highlights:
• To help vaccine developers overcome this hurdle, the UNC School of Medicine lab of Aravinda de Silva, PhD, professor in the UNC Department of Microbiology and Immunology, investigated samples from children enrolled in a dengue vaccine trial to identify the specific kinds of antibody responses that correlate with protection against dengue virus disease.

• The four dengue virus serotypes are mosquito-borne flaviviruses that infect hundreds of millions of individuals each year in Southeast Asia, western Pacific Islands, Africa, and Latin America.

• Nearly 100 million individuals report flu-like symptoms. Though rarely deadly, the virus can cause severe illness, especially when a person who was previously infected with one serotype (and recovers) is then infected by a second serotype.

• This happens because antibodies from the first infection help the virus replicate during the second infection through a process called antibody dependent enhancement.

• A dengue vaccine induced antibody response weighted towards a single dengue virus serotype can mimic this phenomenon.

• Several vaccines have been in clinical development for years, and most show that they induce neutralizing antibodies against all four serotypes.

• The de Silva lab conducted experiments to compare the properties of antibodies against wild-type Dengue viruses and the properties of antibodies produced by a leading vaccine candidate -- Dengvaxia -- which the pharmaceutical company Sanofi Pasteur created using all four dengue virus serotypes in one formulation.
● The vaccine, though, mainly stimulated neutralizing antibodies that recognized epitopes common among all serotypes.

Reference:
https://www.sciencedaily.com/releases/2021/06/210625120404.htm

B. TRIBAL AFFAIRS

1. Hun Festival
● According to the Thadous, Hun, Etymologically signifies time and season. The ‘time’ here significantly encompasses something of the entire cosmology—from earth to heaven, death to life, and all the affairs of man and his spirituality. Hun is an archaic but formal form of time in the above sense of the language.
● Hun, which is celebrated for seven days, is more than a cultural festival. It is a civilizing act of the Thadous.
● Several rites and rituals relating to new things are performed during ‘Hun’. The germination and sprouting of seeds sown in the fields that bring forth new lease of life and hope are given utmost importance in the rituals. The death of the seeds symbolizing the ‘old’ is also very significant.
● The head of the family renews his faith and worships his God in the symbolic ‘Doibom’. He does this on behalf of his entire family for their health, prosperity and well being throughout the year.
● Another importance of Hun lies in the fact that the fate of the family is reckoned during this occasion. As to whether the family shall prosper, healthy or whether any misfortune will befall them are tested on this occasion.
● Hun is the most awaited occasion in a year because it is during Hun that children show great love and respect to their maternal grandparents by offering them the best-fermented rice beer that their mothers prepared for the occasion. In return, they would receive blessings and gifts which they valued so dearly. It is Children’s Day of the Thadous.
● Hun is thus the custom, the culture, the religious affairs, and the greatest occasion for almost everything in the social, religious, and political life of the Thadou Tribe.

Reference:
https://www.northeasttoday.in/2021/06/17/hun-festival-of-the-thadou-tribe-of-manipur/

2. Irular Tribes
● After a five-year struggle, 20 families from the Irular tribal community were given pattas and land for housing in Thiruttani, in Tiruvallur district. Thanks to Thiruttani Revenue Divisional Officer (RDO) M Sathya, they now have water supply and electricity, which they lacked all these years.
● The Irular families had been living in thatched houses along a lake in T Pudur village, and have now shifted to the nearby Pattabiramapuram village.
The Irula are a Dravidian ethnic group inhabiting the area of The Nilgiri Mountains, in the states of Tamil Nadu and Kerala, India.
● Irula resides in just two southwestern countries - Tamil Nadu and Kerala. In Tamil Nadu, they reside in the Nilgiris, Coimbatore, Erode, Namakkal, Salem, and Dharmapuri. Back in Kerala, they reside in the Palakkad district and Attapady and Walayar panchayats.
• Individuals of Irula ethnicity are known as Irular and talk Irula, which belongs to the Dravidian family.
• Alongside their understanding in medicine, their ability in catching snakes, particularly poisonous ones, is nearly legendary.

Reference:

UPSC Previous year questions based on today’s concept:

DAILY PRACTICE QUESTION/S FOR MAINS 2021.
Pl do not forget to upload your answer sheet for a peer review on the telegram channel:
Sosin for Anthropology Q&A
1. Applied Physical Anthropology. (20 Marks)