Syllabus subtopic: Bilateral, regional and global groupings and agreements involving India and/or affecting India’s interests

Prelims and Mains focus: About the Conference and its significance; about the Drosophila fly

News: Pune is set to host the **fifth edition** of the **Asia Pacific Drosophila Research Conference (APDRC5)**, which is being organised in the country for the first time by the **Indian Institute of Science Education and Research (IISER)**.

**About the Conference**

- This **biennial conference**, which is to be held between January 6 and 10, **aims to promote the interaction of Drosophila researchers in the Asia-Pacific region with their peers in the rest of the world**.

- It will bring together scientists from all over the world who use the **fruit fly**, Drosophila, as a **model organism** to address basic and applied questions.

- The event will feature 430 delegates: 330 Indian and 100 foreign. It will see the participation of two Nobel laureates, professors Eric Wieschaus and Michael Rosbash, known for their seminal contribution to the fields of development biology and chronobiology respectively.

- This event is one of the largest meetings of Drosophila researchers in the whole world and attracts scientists working in diverse disciplines ranging from cell and molecular biology to ecology and evolution.

- A total 57 talks and 240 posters on **topics ranging from gametogenesis and stem cells, morphogenesis and mechanobiology, hormones and physiology, cellular and behavioural neurobiology, infection and immunity and ecology and evolution** are scheduled for the conference.
• One of the **highlights of this conference** is that we are explicitly **encouraging undergraduates** from various institutes of the world to **participate in it**. There is a **preconference symposium called ‘signals from the gut’** in collaboration with the National Centre for Cell Science, as well as a preconference microscopy workshop on **superresolution microscopy**. This will feature microscopes from fluorescence imaging to super resolution imaging (50 nm resolution) which are vital for certain kinds of fly work.

• **The last four editions** of this conference took place in Taipei, Seoul, Beijing and Osaka.

**What is Drosophila?**

• Drosophila is one of the most **widelyused and preferred model organisms** in **biological research** across the world for the last 100 years. Several discoveries in biology have been made using this.
• Its genome is entirely sequenced and there is enormous information available about its biochemistry, physiology and behaviour.

**Note:** To read more about the Drosophila fly, click on the link below:

https://theconversation.com/animals-in-research-drosophila-the-fruit-fly-13571