

- The **protein needed** for this signaling is coded by a gene. Everyone has **two copies of this gene**- one from the mother and the other from the father. A **child develops** this disorder **only if both the copies are faulty**.
- **Vulnerable Group →** The disease most often **affects babies and children**. With time, it progresses and makes it extremely difficult for the babies to carry out basic activities like **sitting up, lifting their head, or swallowing milk**.

ZOLGENSMA GENE THERAPY:

- There is also a **gene therapy treatment** named **Zolgensma** which **replaces the faulty gene**.
- US regulators approved this therapy in May 2019.
- Zolgensma works by **supplying a healthy copy of the faulty gene**. It allows nerve cells to then **start producing the needed protein**. This halts the deterioration of the nerve cells and allows the baby to grow more normally.

VIGYAN JYOTI PROGRAMME

WHY IN NEWS?

- The second phase of Vigyan Jyoti programme commenced on the occasion of International Day of Women and Girls in Science on February 11, 2021.

ABOUT

- It was launched by the **Department of Science & Technology (DST)** in December 2019.
- It aims to create a **level-playing field** for the **meritorious girls in high school**. It will encourage them to pursue Science, Technology, Engineering, and Mathematics (**STEM**) in their **higher education** and **make them self-reliant**.
- **Classes Covered →** This programme **started at school level** for meritorious **girls of Class IX to Class XII**.
- **Coverage →** The programme had been running successfully in **50 Jawahar Navodaya Vidyalayas (JNV)** since **2019**. It is now **expanded to 50 more JNVs** for the year 2021-22.
- **Activities under the programme →** The activities under the programme include **student-parent counselling, visit to labs** and

knowledge centres, partners role model interactions, science camps, academic support classes, resource material distribution and tinkering activities. It also provides **online academic support** to students. It includes streaming of video classes, study materials, daily practice problems and doubt clearing sessions.

- **Second Phase →** The second phase of the Vigyan Jyoti aims to **spread the program to 50 more districts**. It will be in addition to the existing 50 districts across the country.

OTHER WOMEN-CENTRIC PROGRAMMES:

- Apart from Vigyan Jyoti, DST runs other women-centric programmes to bring gender parity in Science & Technology (S&T) domain like:
 - **Women Scientists Scheme** to help women with career-break,
 - **Indo-US Fellowship for Women in STEMM (WISTEMM) program** where women scientists can work in research labs of USA,
 - **Consolidation of University Research for Innovation and Excellence in Women Universities (CURIE) programme** to improve R&D infrastructure in women universities and
 - **Gender Advancement for Transforming Institutions (GATI) program** to develop a comprehensive Charter and a framework for assessing Gender Equality in STEM.
- DST has also established **Artificial Intelligence (AI) labs** in women universities to foster AI innovations and to prepare skilled manpower for AI-based jobs in future.

EBOLA

WHY IN NEWS?

- A new case of Ebola was diagnosed in Democratic Republic of Congo recently.

ABOUT

- First discovered in **1976** near the **Ebola River** in what is now the **Democratic Republic of Congo**.
- Ebola virus disease (**EVD**), formerly known as **Ebola haemorrhagic fever**, is a **severe, often fatal illness in humans**.