



## **INDIAN COUNCIL OF MEDICAL RESEARCH**

Department of Health Research – Ministry of Health & Family Welfare  
Government of India

**Media report (11<sup>th</sup> January to 17<sup>th</sup> January 2020)**  
**(ICMR IN NEWS)**

**(Syed Adil Shamim Andrabi)**  
Information Interface Officer

## **Preface**

*The PR Unit/PRO office of ICMR since last one and half years have reached from (where is ICMR located) to (everyday mention of ICMR and DG ICMR in National Media). This change from where to why signifies the media visibility and importance of our organization within this stipulated time duration.*

*Every week Indian Council of Medical Research and Director General ICMR are mentioned by dozens of daily news papers, periodicals and magazines including online editions.*

*This week report (ICMR IN NEWS dated 11<sup>th</sup> January to 17<sup>th</sup> January 2020) includes the mention Indian Council of Medical Research (ICMR) in 47 news papers including top news papers such as Times of India, The Hindu, Hindustan Times, Outlook India, ANI news among others. This report also includes the coverage of two Press Releases from ICMR regarding “Lead exposure can be a risk factor for Alzhemier’s Disease and TrueNat Test for TB” sent to the Media during this week.*

*As an organization we first need to fill internal information vacuum at the headquarters as well as the Institutes for better visibility of ICMR which will pave way for complete dilution of external information gap between ICMR and external public including media, government and other related organizations.*

*Syed Adil Shamim Andrabi  
Information Interface Officer/PRO  
ICMR Hqrs, New Delhi*

**Thalassaemia research centre in Warangal soon**

January 13, 2020/Telangana Today

**Sree Chitra's technology for efficient cancer treatment wins US patent**

January 13, 2020/The New Indian Express

**Exposure to lead can be a risk factor in Alzheimer's disease, says ICMR-NIN**

January 13, 2020/The Hindu

**Lead exposure can be a risk factor for Alzheimer's disease: ICMR-National Institute of Nutrition (NIN) research**

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**Exposure to environmental lead can cause Alzheimer's disease: Study**

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**Lead Exposure Can Be a Risk Factor for Alzheimer's Disease: ICMR**

January 14, 2020/The Quint

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**Hyderabad: Watch out for your lead toxicity levels**

January 14, 2020/Deccan Chronicle

**Sree Chitra Tirunal develops Curcumin fibrin wafer to target malignant cancer cells**

January 14, 2020/Deccan Herald

**Early diagnosis and breast self examination important for fighting breast cancer: experts**

January 14, 2020/The Week

**Turmeric-based tech to kill cancer cells gets US patent**

January 14, 2020/The Times of India



**KL-CANCER-BIOMATERIAL WAFER**

January 14, 2020/Outlook India

**Explained: What is the Centre's recent policy for treatment of rare diseases?**

January 14, 2020/The Indian Express

**Women consume more sugar as compared to men: study**

January 14, 2020/The Times of India

**Health Ministry Publishes New Policy to Care for People With Rare Diseases**

January 14, 2020/The Wire

**First Indian e-device to control smog is here**

January 15, 2020/The Tribune

**ICMR to organize workshop on basic cancer research techniques**

January 16, 2020/BSI

**Gujarat most vulnerable to H1N1 deaths**

January 16, 2020/newsd.in

**Molecular assay TrueNat recommended as initial test for TB and MDR-TB**

January 16, 2020/Pune Mirror

**ICMR validates new test kit for TB, MDR-TB**

January 16, 2020/Drug Today Medical Times

**WHO includes an Indian diagnostic test in its global TB programme**

January 16, 2020/Down to Earth

**WHO endorses tech developed by Indian scientists to detect TB, multi-drug resistant TB**

January 16, 2020/Outlook India

**WHO endorses tech developed by Indian scientists to detect TB, multi-drug resistant TB**

January 16, 2020/Express Healthcare

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**WHO endorses tech developed by Indian scientists to detect TB, multi-drug resistant TB**

January 16, 2020/Deccan Herald

**TrueNet: Indian diagnostic test for disease such as TB**

January 16, 2020/Tech Explorist

**TB diagnostic test developed in India has high accuracy, says WHO**

January 16, 2020/The Hindu

**WHO endorses tech developed by Indian scientists to detect TB, multi-drug resistant TB**

January 16, 2020/ET Healthworld

**WHO endorses 'made in India' test for TB**

January 16, 2020/The Week

**WHO endorses tech developed by Indian scientists to detect TB, multi-drug resistant TB**

January 16, 2020/Financial Express

**WHO endorses India's TB test TrueNat for more accuracy**

January 17, 2020/The Pioneer

**WHO includes an Indian diagnostic test in its global TB programme**

January 17, 2020/The Hindu Business Line

**WHO approves India's cost-effective TB test**

January 17, 2020/Hindustan Times

### **Thalassaemia research centre in Warangal soon**

January 13, 2020/Telangana Today

Thalassaemia research centre will be set up in Warangal soon thanks to the efforts by the Governor Tamilisai Soundararajan. She was successful in convincing the **Indian Council of Medical Research (ICMR)** to sanction a Thalassaemia research centre to Warangal. While she requested setting up of the research centre in Warangal and Hyderabad, the city was chosen ahead of the State capital.

In a press note here IRCS , Warangal Urban, Chairman Dr P Vijay Chander Reddy said that the Director General of ICMR Dr Balram Bhargava wrote that they had reviewed the request of the Governor to establish the ICMR unit for research on Thalassaemia in Warangal and noted that prevalence of hemoglobinopathies at Warangal district was high and there was a need for improving facilities for the patients. “ICMR can provide support for strengthening of existing infrastructure available at the government medical college to provide state-of-the-art diagnostic and management facilities for the patients,” Dr Vijay Chander Reddy said and added that the Director also asked for a detailed project report (DPR) for setting up of a comprehensive Hemoglobinopathies care unit which will include day-care facility, haematology clinic and diagnostic facilities. Dr P Vijay Chander Reddy said with the help of the research centre, DNA tests could be conducted in finding out more about what causes Thalassaemia and to take steps to curb its spread. Kakatiya Medical College is an apt location for setting up the unit as it has the required infrastructure, he added.

### **Sree Chitra's technology for efficient cancer treatment wins US patent**

January 13, 2020/The New Indian Express

A novel technology for cancer treatment developed by the Sree Chitra Tirunal Institute for Medical Sciences has won a US patent. The project funded by the **Indian Council for Medical Research** was led by Dr Lissy Krishnan and team of the Biomedical Technology wing of SCTIMST.

The technology is for sustained delivery of a potential chemotherapeutic molecule around cancer tissues. “Oral and intravenous chemotherapy are effective but they also kill normal cells which cause serious side effects. But continuous local delivery of anti-cancer drug directly on cancer tissue will avoid the drugs affecting normal cells,” said a statement.

## [Exposure to lead can be a risk factor in Alzheimer's disease, says ICMR-NIN](#)



January 13, 2020/The Hindu

Lead is a common pollutant that can get into the environment from a number of commonly used materials like paints, cosmetics, batteries, glass and low-grade toys. Its role as a risk factor in the development of neuro-degenerative diseases has been established globally. Environmental exposure to this toxic heavy metal is associated with many patho-physiological dysfunctions of the central nervous system, and now, recent lab-based studies conducted at Indian Council of Medical Research-National Institute of Nutrition (ICMR-NIN) have established a possible link between lead exposure and Alzheimer's disease.

### **Molecular mechanism**

The release issued by ICMR notes that senior scientist Suresh Challa looked into the molecular mechanism behind both lead and beta amyloid peptide induced toxicity by investigating the molecular mechanism involved in the development of lead induced Alzheimer's disease through in vitro studies.

“In fact, Alzheimer's disease has a complex patho-physiology which involves initially the formation of beta amyloid plaques and tangles in the brain. In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease,” said Dr. Challa

## [Lead exposure can be a risk factor for Alzheimer's disease: ICMR-National Institute of Nutrition \(NIN\) research](#)

January 13, 2020/Pune Mirror

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A team lead by ICMR- NIN's senior scientist Dr Suresh Challa is unravelling the molecular mechanism behind both lead and beta amyloid peptide induced toxicity by investigating the molecular mechanism involved in the development of lead induced Alzheimer's disease through in vitro studies. “In fact, Alzheimer's disease has a complex patho-physiology which initially involves formation of beta amyloid plaques and tangles in the brain. In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease”, said Dr Suresh Challa.

## [Exposure to environmental lead can cause Alzheimer's disease: Study](#)

January 13, 2020/Live Mint



Environmental exposure to lead can cause Alzheimer's disease, a recent research done by scientists at **Indian Council of Medical Research**-National Institute of Nutrition (ICMR-NIN) has established. Lead, toxic heavy metal, is a common pollutant that can get into environment from a number of commonly used materials like paints, cosmetics, batteries, glass and low grade toys. Alzheimer's disease is a progressive and irreversible brain disorder that gradually destroys memory and thinking skills of the person affected. Lead's role as a risk factor in development of neurodegenerative diseases and many dysfunctions of the human central nervous system is established globally. The ICMR- NIN team worked on the molecular mechanism involved in the development of lead induced Alzheimer's disease through in vitro (outside a living organism) studies. "Alzheimer's disease has a complex patho-physiology (the study of the disordered physiological processes that cause, result from, or are otherwise associated with a disease) which involves initially; formation of beta amyloid plaques (clusters that form in the spaces between the nerve cells) and tangles (knot of the brain cells) in the brain," said Suresh Challa senior scientist at ICMR- NIN who lead the team. "In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease," he said.

## [Lead exposure can be a risk factor for Alzheimer, says study](#)

January 13, 2020/Business Standard

A team led by a scientist from the **Indian Council of Medical Research** - National Institute of Nutrition (ICMR-NIN) have established a role of lead as a risk factor in the development of neurodegenerative diseases. A joint study conducted by the Indian Council of Medical Research (ICMR) and the National Institute of Nutrition has now established the possible link between lead exposure and Alzheimer's disease. As of 2015, there are 4.4 million people in India living with Alzheimer's disease which is likely to be double by 2030, stated an international medical journal. Dr Suresh Challa from ICMR, senior scientist, said, "Alzheimer's disease has complex pathophysiology which involves initially; formation of beta-amyloid plaques and tangles in the brain. In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of 'lead' in Alzheimer's disease."

"Our study showed increased cell death and increased levels of pro-apoptotic marker proteins. Further, the proteins involved in neurodevelopment and regeneration have depleted. Such effects led to decreased expression levels of synaptophysin, finally leading to loss of memory as in Alzheimer's disease," said Dr Challa. Dr. R Hemalatha, Director, ICMR-NIN said that maternal exposure to lead during pregnancy can cause developmental reprogramming which can lead to higher risk and early onset of Alzheimer's disease in later life of the child.

## [Lead Exposure Can Be a Risk Factor for Alzheimer, Says Study](#)

January 13, 2020/Letestly



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## **Lead exposure can be a risk factor for Alzheimer, says study**

January 13, 2020/Devdiscourse



A team led by a scientist from the **Indian Council of Medical Research** - National Institute of Nutrition (ICMR-NIN) have established a role of lead as a risk factor in the development of neurodegenerative diseases. A joint study conducted by the Indian Council of Medical Research (ICMR) and the National Institute of Nutrition has now established the possible link between lead exposure and Alzheimer's disease. As of 2015, there are 4.4 million people in India living with Alzheimer's disease which is likely to be double by 2030, stated an international medical journal. Dr Suresh Challa from ICMR, senior scientist, said, "Alzheimer's disease has complex pathophysiology which involves initially; formation of beta-amyloid plaques and tangles in the brain. In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of 'lead' in Alzheimer's disease."

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## **Exposure to lead can be a risk factor in Alzheimer's disease, says ICMR-NIN**

January 13, 2020/The Hindu

Lead is a common pollutant that can get into the environment from a number of commonly used materials like paints, cosmetics, batteries, glass and low-grade toys. Its role as a risk factor in the development of neuro-degenerative diseases has been established globally. Environmental exposure to this toxic heavy metal is associated with many patho-physiological dysfunctions of the central nervous system, and now, recent lab-based studies conducted at Indian Council of Medical Research-National Institute of Nutrition (ICMR-NIN) have established a possible link between lead exposure and Alzheimer's disease.

### **Molecular mechanism**

The release issued by ICMR notes that senior scientist Suresh Challa looked into the molecular mechanism behind both lead and beta amyloid peptide induced toxicity by investigating the molecular mechanism involved in the development of lead induced Alzheimer's disease through in vitro studies.

"In fact, Alzheimer's disease has a complex patho-physiology which involves initially the formation of beta amyloid plaques and tangles in the brain. In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease," said Dr. Challa

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A team lead by ICMR- NIN's senior scientist Dr Suresh Challa is unravelling the molecular mechanism behind both lead and beta amyloid peptide induced toxicity by investigating the molecular mechanism involved in the development of lead induced Alzheimer's disease through in vitro studies. "In fact, Alzheimer's disease has a complex patho-physiology which initially involves formation of beta amyloid plaques and tangles in the brain. In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease", said Dr Suresh Challa.

## [Exposure to environmental lead can cause Alzheimer's disease: Study](#)

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## **Lead Exposure Can Be a Risk Factor for Alzheimer's Disease: ICMR**

January 14, 2020/The Quint



Research conducted at the **Indian Council of Medical Research** - National Institute of Nutrition (ICMR-NIN) has established a possible link between lead exposure and Alzheimer's disease. This adds to the bulk of evidence for the adverse health impact of this common pollutant, found in materials like paints, cosmetics, batteries, glass, and low-grade toys. In a press release dated 13 January, the national council said, "Environmental exposure to this toxic heavy metal is associated with many pathophysiological dysfunctions of the central nervous system." Led by senior scientist Dr Suresh Challa, the research discovered the molecular mechanism by which lead-induced toxicity leads to the development of Alzheimer's disease through in vitro studies.

"In fact, Alzheimer's Disease has a complex pathophysiology which involves initially; formation of beta amyloid plaques and tangles in the brain. In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease." Dr Suresh Challa

The scientists also concluded that maternal exposure to lead during pregnancy can cause developmental reprogramming, leading to a higher risk and early onset of Alzheimer's later on in the child's life.

## **Lead exposure linked to Alzheimer's disease: ICMR study**

January 14, 2020/Hindustan Times

Lead exposure can lead to Alzheimer's - a progressive disease that destroys memory and other important mental function, scientists at the **Indian Council of Medical Research**-led National Institute of Nutrition (ICMR-NIN) have established through laboratory-based studies. Lead is a common pollutant that can get into environment from a number of commonly used materials like paints, cosmetics, batteries, glass and low grade toys, and is known to affect the central nervous system after prolonged exposure. Its role as a risk factor in development of neurodegenerative diseases is also established through various studies globally. "Recent lab-based studies conducted at ICMR-NIN have now established the possible link between lead exposure and Alzheimer's disease," said ICMR in a statement. A team led by ICMR- NIN's senior scientist Dr Suresh Challa has shown the molecular mechanism involved in the development of lead induced Alzheimer's disease through in vitro studies. "In fact, Alzheimer's Disease has a complex pathophysiology which involves initially formation of beta amyloid plaques and tangles in the brain. In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease," said Dr Challa

## **Hyderabad: Watch out for your lead toxicity levels**

January 14, 2020/Deccan Chronicle



Lead toxicity leading to Alzheimer's disease has been established in a molecular model according to laboratory studies conducted by the **Indian Council for Medical Research** and the National Institute of Nutrition. In-vitro studies have shown that the molecular mechanism of lead and the brain protein beta amyloid peptide induced toxicity, showing how lead content can induce Alzheimer's disease. Researchers have found that the brain protein beta amyloid is the prime suspect for the destruction of cells. The protein accumulates in the brain forming a plaque that disrupts communication between brain cells, leading to their death. The excess protein found in the study and its co-relation with lead toxicity has been found in vulnerable groups. It has now been confirmed that lead too is one of the reasons for the onset of the disease. Oxidative stress, inflammation, degeneration and neuronal cell death are also causes of the disease. Dr Suresh Challa, senior scientist and lead researcher, said, "Our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease. We found that the exposure does cause harm and in the long run is one of the factors for neurodegenerative disease."

Lead is commonly used in materials such as paints, cosmetics, batteries, glass and also low-grade toys. "Maternal exposure to lead during pregnancy can cause developmental reprogramming which can lead to higher risk and early onset of Alzheimer's disease in later life of the child. Since lead exposure is an important public health concern, the current findings could be another piece in solving the puzzle towards understanding the intracellular mechanism of Alzheimer's disease. Such findings may help in developing preventive and management strategies for the elderly," said Dr R. Hemalatha, director, ICMR-NIN.

## **Lead Exposure Can Be a Risk Factor for Alzheimer's Disease: ICMR**

January 14, 2020/The Quint

Research conducted at the **Indian Council of Medical Research** - National Institute of Nutrition (ICMR-NIN) has established a possible link between lead exposure and Alzheimer's disease. This adds to the bulk of evidence for the adverse health impact of this common pollutant, found in materials like paints, cosmetics, batteries, glass, and low-grade toys. In a press release dated 13 January, the national council said, "Environmental exposure to this toxic heavy metal is associated with many pathophysiological dysfunctions of the central nervous system." Led by senior scientist Dr Suresh Challa, the research discovered the molecular mechanism by which lead-induced toxicity leads to the development of Alzheimer's disease through in vitro studies.

"In fact, Alzheimer's Disease has a complex pathophysiology which involves initially; formation of beta amyloid plaques and tangles in the brain. In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease." Dr Suresh Challa

The scientists also concluded that maternal exposure to lead during pregnancy can cause developmental reprogramming, leading to a higher risk and early onset of Alzheimer's later on in the child's life.

## Lead exposure linked to Alzheimer's disease: ICMR study

January 14, 2020/Hindustan Times



Lead exposure can lead to Alzheimer's - a progressive disease that destroys memory and other important mental function, scientists at the **Indian Council of Medical Research**-led National Institute of Nutrition (ICMR-NIN) have established through laboratory-based studies. Lead is a common pollutant that can get into environment from a number of commonly used materials like paints, cosmetics, batteries, glass and low grade toys, and is known to affect the central nervous system after prolonged exposure. Its role as a risk factor in development of neurodegenerative diseases is also established through various studies globally. "Recent lab-based studies conducted at ICMR-NIN have now established the possible link between lead exposure and Alzheimer's disease," said ICMR in a statement. A team led by ICMR- NIN's senior scientist Dr Suresh Challa has shown the molecular mechanism involved in the development of lead induced Alzheimer's disease through in vitro studies. "In fact, Alzheimer's Disease has a complex pathophysiology which involves initially formation of beta amyloid plaques and tangles in the brain. In addition, oxidative stress and inflammation are known to be involved in the progression of the disease, with loss of memory and neuronal cell death. In this scenario, our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease," said Dr Challa

## Hyderabad: Watch out for your lead toxicity levels

January 14, 2020/Deccan Chronicle

Lead toxicity leading to Alzheimer's disease has been established in a molecular model according to laboratory studies conducted by the **Indian Council for Medical Research** and the National Institute of Nutrition. In-vitro studies have shown that the molecular mechanism of lead and the brain protein beta amyloid peptide induced toxicity, showing how lead content can induce Alzheimer's disease. Researchers have found that the brain protein beta amyloid is the prime suspect for the destruction of cells. The protein accumulates in the brain forming a plaque that disrupts communication between brain cells, leading to their death. The excess protein found in the study and its co-relation with lead toxicity has been found in vulnerable groups. It has now been confirmed that lead too is one of the reasons for the onset of the disease. Oxidative stress, inflammation, degeneration and neuronal cell death are also causes of the disease. Dr Suresh Challa, senior scientist and lead researcher, said, "Our study investigated the basic molecular mechanism behind the involvement of lead in Alzheimer's disease. We found that the exposure does cause harm and in the long run is one of the factors for neurodegenerative disease."

Lead is commonly used in materials such as paints, cosmetics, batteries, glass and also low-grade toys. "Maternal exposure to lead during pregnancy can cause developmental reprogramming which can lead to higher risk and early onset of Alzheimer's disease in later life of the child. Since lead exposure is an important public health concern, the current findings could be another piece in solving the puzzle towards understanding the intracellular mechanism of Alzheimer's disease. Such findings may help in developing preventive and management strategies for the elderly," said Dr R. Hemalatha, director, ICMR-NIN.

## [Sree Chitra Tirunal develops Curcumin fibrin wafer to target malignant cancer cells](#)



January 14, 2020/Deccan Herald

The Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) here has developed a curcumin fibrin wafer which will directly target malignant cancer cells, sparing the healthy ones. The efficacy of this technology has to be tested in animal models of cancers first and if found effective and safe, has to be tested in patients having cancer, Dr Asha Kishore, Director of SCTIMST told PTI.

"We have enabled the technology to test the anti-cancer properties of curcumin through this method of directly applying to cancer tissues", she said. The biomaterial wafer is targeted for implantation to the affected site after surgical removal of cancer tissue for killing any remaining cancer cells which have the potential for recurrence or spreading to other parts of the body. In addition to drug delivery, the fibrin wafer can promote blood clotting at the surgical site. The US patent has been given jointly to SCTIMST and the **Indian Council for Medical Research (ICMR)**, Delhi, for the novel technology developed for sustained delivery of a potential chemotherapeutic molecule in and around cancer tissues, a press release said here. Oral and intravenous chemotherapy is effective in cancer because it kills cancer cells. However, it can also kill normal cells in the process causing unacceptable side effects. In contrast, continuous local delivery of the anticancer drugs directly on cancer tissue will avoid the drugs affecting normal cells and tissues. While designing such drug delivery systems, it is essential to use biomaterials that are absorbed from the body without causing any damage to healthy tissues.

## [Early diagnosis and breast self examination important for fighting breast cancer: experts](#)

January 14, 2020/The Week

Catch the disease early. In a country where one woman dies of breast cancer every 13 minutes, early diagnosis is the only way to change the grim story of the suffering and mortality due to breast cancer, top experts from the Union ministry of health and family welfare highlighted at a seminar organised by THE WEEK at the India Habitat Centre in New Delhi. At the inaugural session, R. Prasannan, chief of bureau, THE WEEK, Delhi, set the tone for the event by quoting the high incidence and mortality rates due to the disease. "Every four minutes, one woman in India is diagnosed of breast cancer. Every 13 minutes, one woman dies due to breast cancer. Seventy-five thousand women die each year because the cancer in their breast is detected at stage 3. Deaths due to breast cancer are avoidable if the disease is detected early," said Prasannan. Dr Balram Bhargava, secretary, department of health research, and director general of ICMR said the government had embarked on an ambitious programme to screen for non-communicable diseases through the planned 1.5 lakh health and wellness centres. However, Bhargava cautioned that despite screening for a disease such as cancer, one could still end up sick. "You may test negative for a disease today, but tomorrow you may have that disease, such is the nature of biological systems such as the human body," he said. Bhargava too emphasised on the importance of breast self examination to catch the disease early.

## [Turmeric-based tech to kill cancer cells gets US patent](#)

January 14, 2020/The Times of India



A potentially breakthrough cancer-fighting technology involving a molecule extracted from turmeric has won Thiruvananthapuram's Sree Chitra Tirunal Institute for Medical Sciences a US patent. According to Lissy Krishnan, head of Sree Chitra's research team, delivery of "curcumin" directly to the affected tissues rather than through conventional oral or intravenous methods enables it to target malignant cancer cells while sparing the healthy ones around them. Turmeric has proven anti-cancer properties and curcumin, a molecule extracted from it, is easily absorbed by the body and aids blood clotting, Krishnan said. At Sree Chitra, research funded by the **Indian Council for Medical Research** focused on processing curcumin to form a easy-to-use wafer configuration. When applied to body tissues, the curcumin present in the wafer is released into tissue fluids. Human albumin, or rich proteins present in the fibrin clot produced from heavy bleeding, binds albumin receptors to cancer cells, thereby permitting its entry into the cells. Simultaneously, the fibrin clot is removed by the body's natural clot breakdown mechanism without any adverse effect. The institute is ready to transfer the technology for future development of curcumin as an anti-cancer treatment through animal and clinical trials. "The US patent adds value to our efforts to transfer technology and boosts the industry's confidence in exploring validation and trials with international markets in mind," Kishore said.

## [KL-CANCER-BIOMATERIAL WAFER](#)

January 14, 2020/Outlook India

Sree Chitra develops Circumin fibrin wafer to target malignant cancer cells Thiruvananthapuram, Jan 13 (PTI): The Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) here has developed a circumin fibrin wafer which will directly target malignant cancer cells, sparing the healthy ones. The efficacy of this technology has to be tested in animal models of cancers first and if found effective and safe, has to be tested in patients having cancer, Dr Asha Kishore, Director of SCTIMST told PTI. "We have enabled the technology to test the anti cancer properties of circumin through this method of directly applying to cancer tissues", she said. The bio material wafer is targeted for implantation to the affected site after surgical removal of cancer tissue for killing any remaining cancer cells which have the potential for recurrence or spreading to other parts of the body. In addition to drug delivery, the fibrin wafer can promote blood clotting at the surgical site. The US patent has been given jointly to SCTIMST and the **Indian Council for Medical Research (ICMR)**, Delhi, for the novel technology developed for sustained delivery of a potential chemotherapeutic molecule in and around cancer tissues, a press release said here. Oral and intravenous chemotherapy are effective in cancer because it kills cancer cells. However, it can also kill normal cells in the process causing unacceptable side effects. In contrast, continuous local delivery of anticancer drug directly on cancer tissue will avoid the drugs affecting normal cells and tissues. While designing such drug delivery systems, it is essential to use bio materials that are absorbed from the body without causing any damage to healthy tissues. Several natural products have been identified by various laboratories which have the potential to kill cancer cells.

## **Explained: What is the Centre's recent policy for treatment of rare diseases?**



January 14, 2020/The Indian Express

The Union Ministry of Health and Family Welfare Monday published a national policy for the treatment of 450 'rare diseases'. Among other measures, the policy intends to kickstart a registry of rare diseases, which will be maintained by the **Indian Council of Medical Research (ICMR)**.

The Centre first prepared such a policy in 2017 and appointed a committee in 2018 to review it. The revised policy says assistance of Rs 15 lakh may be provided for the treatment of some such diseases.

### **What are rare diseases?**

Broadly, a 'rare disease' is defined as a health condition of low prevalence that affects a small number of people when compared with other prevalent diseases in the general population. While there is no universally accepted definition of rare diseases, countries typically arrive at their own descriptions, taking into consideration disease prevalence, its severity and the existence of alternative therapeutic options. In the US, for instance, a rare disease is defined as a condition that affects fewer than 200,000 people. The same definition is used by the National Organisation for Rare Disorders (NORD). The US National Institutes of Health (NIH) has listed 7,000 rare diseases. While a majority of rare diseases are believed to be genetic, many — such as some rare cancers and some autoimmune diseases — are not inherited, as per the NIH.

India does not have a definition of rare diseases because there is a lack of epidemiological data on their incidence and prevalence. According to the policy, rare diseases include genetic diseases, rare cancers, infectious tropical diseases, and degenerative diseases. As per the policy, out of all rare diseases in the world, less than five per cent have therapies available to treat them.

## **Women consume more sugar as compared to men: study**

January 14, 2020/The Times of India

We often find solace in relishing our favourite sweet delights. No wonder, for most of us that's the best way resort to take a break from the monotony of life, despite the fact that too much consumption of sugar can be harmful for health. According to a recent study, it was established that the average intake of added sugar is more among women than in men. This survey was conducted by the **Indian Council of Medical Research (ICMR)**- National Institute of Nutrition (NIN), Hyderabad and sponsored by the International Life Sciences Institute -India (ILSI-India). As per the survey, women take around 20.2 grams of added sugar in a day while men's intake of added sugar is 18.7 grams per day. The other significant finding of the study was that the mean intake of added sugar among metro cities of India, measured in grams per day, was highest in Mumbai and least in Hyderabad. Prof. P K Seth, Chairman, ILSA-India said, "the survey shows population of Mumbai and Ahmedabad with their average intake level of added sugar at 26.3 grams and 25.9 grams per day has a much higher intake than their counterparts in Delhi (23.2 grams/ day), Bengaluru (19.3 grams day), Kolkata (17.1 grams per day) and Chennai (16.1 grams per day)."

## [Health Ministry Publishes New Policy to Care for People With Rare Diseases](#)



January 14, 2020/The Wire

The Union ministry of health and family welfare ministry has drafted the country's first national policy pertaining to rare diseases. If implemented, the policy will require the **Indian Council of Medical Research** to maintain a registry of rare diseases, currently numbering 450 in the policy document.

However, it's short on details about the government's roadmap on implementation, which is one reason why experts have called the policy "inadequate" even as they welcomed the government's initiative on what continues to be a sensitive issue.

The first draft of the policy was prepared by the health ministry in 2017 and had appointed a committee in 2018 to review it. It classifies rare diseases into three categories: "diseases requiring one-time curative treatment, diseases that need long-term treatment but the cost is low, and diseases that require life-long treatment and the cost is high," the Indian Express reported.

The Centre is expected to provide Rs 15 lakh each to patients of rare diseases who require one-time treatment under the Rashtriya Arogya Nidhi Scheme, which covers osteopetrosis, immune deficiency disorders and lysosomal storage disorders. However, the policy also requires potential beneficiaries to already have registered with the Pradhan Mantri Jan Arogya Yojana, which excludes people from households with an income of at least Rs 10,000 per month, among other criteria. In effect, the policy will include the poor but potentially exclude anyone even slightly better off – a problem because rare diseases are typically costlier to treat.

## [First Indian e-device to control smog is here](#)

January 15, 2020/The Tribune

Indian scientists have developed country's first electronically charged machine with proven potential to address lethal environmental pollution caused by dust and smog. The "electrostatic dust mitigation and smog control device" designed and tested by the Chandigarh-based Central Scientific Instruments Organisation, a lab under the Council of Scientific and Industrial Research, will hit the market in a month after the completion of transfer of technology to the industry. The device works on the principle of storing electronically charged water droplets, which get released once they come into contact with fine particulate matter — PM2.5 and PM10 – and smog. So far only conventional methods are available in which you either create artificial rain to settle dust and smog or use water sprinklers. Both these methods are time-consuming, water-intensive and expensive. The new device consumes one-third water as against conventional devices; and is fast and affordable. Machines of several specifications have been developed depending on the scale of pollution to be addressed," Surender Singh Saini, Head, Business Development, CSIO, told The Tribune today. Seven in every 10 Indians are currently exposed to lethal air pollutants, says **Indian Council of Medical Research**. Air pollution killed 1.24 million Indians in 2017, which was 12.5 per cent of all deaths that year. Of total deaths from air pollution, 0.67 million were attributable to ambient particulate matter pollution, which the new CSIO device promises to contain.

## ICMR to organize workshop on basic cancer research techniques

January 16, 2020/BSI



**Indian Council of Medical Research (ICMR)** in association with National Institute of Cancer Prevention and Research (NICPR) will be organising workshop on Basic Molecular Biology Techniques relevant to Cancer Research from January 28 to 31, 2020 at NICPR (ICMR), Noida. The workshop is funded by Department of Health Resource (DHR) with no course fee and will offer hands on training to participants. The workshop has various themes like Polymerase Chain Reaction (PCR) including topics like Allele Specific PCR, Nested/Hemi-nested PCR, PCR-restriction fragment length polymorphism (RFLP), Real Time PCR, Methylation specific PCR along with Human Papillomavirus (HPV) detection which includes PCR method and Hybrid Capture II (HC II).

## Gujarat most vulnerable to H1N1 deaths

January 16, 2020/newsd.in

Swine flu deaths had been on the rise in Gujarat. Delhi also is vulnerable to it in terms of morbidity or susceptibility to swine flu cases. Gujarat had seen a total case of 1,651 swine flu deaths in the period, and Delhi, with 11,703 cases, was deemed to be the most vulnerable. The study was done by the **Indian Council of Medical Research (ICMR)**; Johns Hopkins University, Baltimore, the US; and a paediatric consultant from Kolkata. The experts on a whole studied 1.14 lakh swine flu cases which ended in 8,543 deaths. Senior officials from the health department said that the Saurashtra region (especially Bhuj and Rajkot) and Ahmedabad in central Gujarat acted as pacemakers for the flu during each outbreak. In 2015, the Ahmedabad Municipal Corporation (AMC) had reported 2,131 cases in the first three months. In the period of the first three months, 152 cases were reported in 2016, 27 in 2017, and 19 in 2018.

## Molecular assay TrueNat recommended as initial test for TB and MDR-TB

January 16, 2020/Pune Mirror

In a significant development, World Health Organisation (WHO) Global TB Programme has included an Indian Molecular assay TrueNat as initial test for TB and MDR-TB in view of its high diagnostic accuracy, in the rapid communication document. The TrueNat TB test is a new molecular test that diagnoses TB as well as testing for resistance to the drug rifampicin in about 90 minutes. It is a matter of pride for **Indian Council of Medical Research (ICMR)**, Department of Health Research (DHR), New Delhi, as this was a long journey for promoting 'Indigenous diagnostic technologies for diagnosis of TB and MDR/XDR-TB' developed by Indian scientists. In an effort that was supported by DHR, Ministry of Health and Family welfare, Government of India and DBT, various indigenous technologies developed by Indian scientists and companies for detection of MDR/XDR TB were reviewed. Most promising kits were selected by the 'Expert Group' and were subjected to a double blind validation in comparison to standard tests at four national reference laboratories of the country. After a stringent review, series of validation, subsequent feasibility studies and continuous follow-up, the 'TrueNat M.TB & Rif' assay was found to be at par with the internationally recognized molecular assay Gene Xpert in terms of sensitivity and specificity and detection of rifampicin resistance. This was taken up by National TB Elimination Programme after recommendations from ICMR.

## ICMR validates new test kit for TB, MDR-TB

January 16, 2020/Drug Today Medical Times



The **Indian Council of Medical Research (ICMR)** has recommended a new, modern and low-cost TB and MDR-TB diagnostic kit that has the potential to change the tuberculosis treatment scenario in the country.

The ICMR's validation comes after a World Health Organisation TB Programme has included an Indian Molecular assay TrueNat as initial test for the disease in view of its high diagnostic accuracy. The TrueNat TB test is a new molecular test that diagnoses TB as well as testing for resistance to the drug Rifampicin in about 90 minutes. The biggest advantage of the test is that it can be done at a primary healthcare centre without electricity, as the portable machine is run by a battery.

“After a stringent review and a series of validation and subsequent feasibility studies and continuous follow-up, the ‘TrueNat M.TB & Rif’ assay was found to be at par with the internationally recognised molecular assay Gene Xpert in terms of sensitivity and specificity and detection of Rifampicin resistance,” said Dr. Balram Bhargava, DG ICMR. He pointed out, “This was taken up by National TB Elimination Programme after recommendations from ICMR.” Based on the interim analysis of the data, WHO included TrueNat as a test to diagnose TB and to sequentially detect Rifampicin resistance in view of its high diagnostic accuracy.

## WHO includes an Indian diagnostic test in its global TB programme

January 16, 2020/Down to Earth

In a significant development, the World Health Organization's (WHO) Global Tuberculosis Programme has included an Indian molecular assay as initial test for detecting the disease and for identifying resistant strains of the tuberculosis (TB) bacteria. The TrueNet assay, a new molecular test to diagnose TB, also checks for resistance to the rifampicin drug in about 90 minutes.

The **Indian Council of Medical Research (ICMR)** has been trying to promote indigenous technologies to diagnose TB, including multi-drug- and extensively drug-resistant (MDR/XDR) TB. A team of experts reviewed various technologies developed by Indian scientists and companies for the detection of MDR/XDR TB, with support from Department of Health Research in the Union Ministry of Health and Family welfare, and the Department of Biotechnology under the Union Ministry of Science and Technology. They shortlisted the most promising kits and conducted double blind validation in comparison to standard tests at four national reference laboratories of the country. After a stringent review and a series of validation and subsequent feasibility studies and continuous follow-up, the TrueNat assay was found to be on a par with internationally recognised molecular assay Gene Xpert in terms of sensitivity and specificity and detection of rifampicin resistance. Subsequently, National TB Elimination Programme took it up, after recommendations from ICMR.

## [WHO endorses tech developed by Indian scientists to detect TB, multi-drug resistant TB](#)



January 16, 2020/Outlook India

The World Health Organisation (WHO) has endorsed a technology developed by Indian scientists to detect tuberculosis and multi-drug resistant TB in view of its high diagnostic accuracy, health ministry officials said on Thursday.

The WHO's Global TB Programme has included TrueNat TB test -- a new molecular test that detects tuberculosis as well as resistance to the drug Rifampicin in about 90 minutes -- in its rapid communication document on molecular investigative procedure in laboratory medicine and pharmacology. According to **Indian Council of Medical Research (ICMR)** Director General Dr Balram Bhargava, the endorsement of the technology by WHO would enable low and middle-income countries to procure TrueNat for tuberculosis and Rifampicin resistance, thus supporting elimination of the disease in developing countries. "The TrueNat assay kit is highly cost-effective compared to GeneXpert and can be used in peripheral centres without an air conditioned laboratory as it runs on battery which can be solar powered. "The kit works in two steps. In the first step, the DNA is extracted from the sputum and the second stage involves detection of tuberculosis and multi-drug resistant TB," a senior health ministry official said. Supported by the Department of Health Research (DHR), Ministry of Health and DBT, various indigenous technologies developed by Indian scientists and companies for detection of multi-drug resistant (MDR)/extensively drug-resistant (XDR) TB were reviewed, an ICMR statement said.

## [WHO endorses tech developed by Indian scientists to detect TB, multi-drug resistant TB](#)

January 16, 2020/Express Healthcare

The World Health Organisation (WHO) has endorsed a technology developed by Indian scientists to detect tuberculosis and multi-drug resistant TB in view of its high diagnostic accuracy, health ministry officials have said. The WHO's Global TB Programme has included TrueNat TB test — a new molecular test that detects tuberculosis as well as resistance to the drug Rifampicin in about 90 minutes — in its rapid communication document on molecular investigative procedure in laboratory medicine and pharmacology. According to **Indian Council of Medical Research (ICMR)** Director General Dr Balram Bhargava, the endorsement of the technology by WHO would enable low- and middle-income countries to procure TrueNat for tuberculosis and Rifampicin resistance, thus supporting elimination of the disease in developing countries. "The TrueNat assay kit is highly cost-effective compared to GeneXpert and can be used in peripheral centres without an air-conditioned laboratory as it runs on battery which can be solar-powered. "The kit works in two steps. In the first step, the DNA is extracted from the sputum and the second stage involves detection of tuberculosis and multi-drug resistant TB," a senior health ministry official said. Supported by the Department of Health Research (DHR), Ministry of Health and DBT, various indigenous technologies developed by Indian scientists and companies for detection of multi-drug resistant (MDR)/extensively drug-resistant (XDR) TB were reviewed, an ICMR statement said. The most promising kits were selected by an expert group and those were subjected to a double-blind validation in comparison to standard tests at four national reference laboratories of the country.

## [WHO endorses tech developed by Indian scientists to detect TB, multi-drug resistant TB](#)



January 16, 2020/Devdiscourse

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January 16, 2020/Deccan Herald

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"The TrueNat assay kit is highly cost-effective compared to GeneXpert and can be used in peripheral centres without an air-conditioned laboratory as it runs on a battery which can be solar-powered.

"The kit works in two steps. In the first step, the DNA is extracted from the sputum and the second stage involves detection of tuberculosis and multi-drug resistant TB," a senior health ministry official said. Supported by the Department of Health Research (DHR), Ministry of Health and DBT, various indigenous technologies developed by Indian scientists and companies for detection of multi-drug resistant (MDR)/extensively drug-resistant (XDR) TB were reviewed, an ICMR statement said.

## TrueNet: Indian diagnostic test for disease such as TB

January 16, 2020/Tech Explorist



In a significant development, the WHO Global Tuberculosis Programme has included an Indian molecular assay as an initial test for detecting the disease and for identifying resistant strains of the TB bacteria. The assay named TrueNet has been included in the rapid communication document on Molecular Assays released by WHO's Global TB Programme. It is a new molecular test that diagnosed TB as well as tests for resistance to the drug rifampicin in about 90 minutes. The development is the fruition of efforts on the part of the **Indian Council of Medical Research (ICMR)** to promote indigenous technologies for the diagnosis of TB and multi-drug and extensively drug-resistant TB (MDR/ XDR TB). A team of experts reviewed various technologies developed by Indian scientists and companies for the detection of MDR/XDR TB, with support from the Department of Health Research in Union Ministry of Health and Family Welfare and Department of Biotechnology in Union Ministry of Science and Technology. The expert shortlisted the most promising kits and conducted double-blind validation in comparison to standard tests at four national reference laboratories of the country. After a rigorous review and a series of validation and subsequent feasibility studies and continuous follow-up, the TrueNat assay was found to be on par with internationally recognized molecular assay Gene Xpert in terms of sensitivity and specificity and detection of rifampicin resistance. Subsequently, the National TB Elimination Programme took it up, after recommendations from ICMR.

## TB diagnostic test developed in India has high accuracy, says WHO

January 16, 2020/The Hindu

In a Rapid Communication published on January 14, the World Health Organization (WHO) had mentioned that the India-made Truenat MTB, a molecular diagnostic test for pulmonary and extrapulmonary TB and rifampicin-resistant TB, has high accuracy.

Truenat MTB has “high diagnostic accuracy as initial test to diagnose TB and to sequentially detect rifampicin resistance”, says the WHO Communication. It will be used as an initial test thus replacing sputum smear microscopy.

Truenat is developed by the Goa-based Molbio Diagnostics. The company was provided with technical assistance and resources by the Foundation for Innovative New Diagnostics (FIND) to help commercialise Truenat. **ICMR** had assessed and validated the diagnostic tool.

“Truenat will be cheaper per test than Xpert. The equipment and cartridges cost more in the case of Xpert,” says Prof. Balaram Bhargava, Director-General of ICMR. “Truenat is robust and most suited for Indian conditions.”

“With its better sensitivity, Truenat can be used as the initial tool for TB diagnosis,” says Prof. Bhargava.

Besides other studies, a multi-centric, prospective field evaluation study was carried out in India, Ethiopia, Peru, Papua New Guinea involving 744 participants, with final results on bacteriological culture.

## WHO endorses tech developed by Indian scientists to detect TB, multi-drug resistant TB



January 16, 2020/ET Healthworld

The World Health Organisation (WHO) has endorsed a technology developed by Indian scientists to detect tuberculosis and multi-drug resistant TB in view of its high diagnostic accuracy, health ministry officials said on Thursday. The WHO's Global TB Programme has included TrueNat TB test, a new molecular test that detects tuberculosis as well as resistance to the drug Rifampicin in about 90 minutes in its rapid communication document on molecular investigative procedure in laboratory medicine and pharmacology. According to **Indian Council of Medical Research (ICMR)** Director General Dr Balram Bhargava, the endorsement of the technology by WHO would enable low and middle-income countries to procure TrueNat for tuberculosis and Rifampicin resistance, thus supporting elimination of the disease in developing countries. "The TrueNat assay kit is highly cost-effective compared to GeneXpert and can be used in peripheral centres without an air conditioned laboratory as it runs on battery which can be solar powered. "The kit works in two steps. In the first step, the DNA is extracted from the sputum and the second stage involves detection of tuberculosis and multi-drug resistant TB," a senior health ministry official said. Supported by the Department of Health Research (DHR), Ministry of Health and DBT, various indigenous technologies developed by Indian scientists and companies for detection of multi-drug resistant (MDR)/extensively drug-resistant (XDR) TB were reviewed, an ICMR statement said. The most promising kits were selected by an expert group and those were subjected to a double-blind validation in comparison to standard tests at four national reference laboratories of the country.

## WHO endorses 'made in India' test for TB

January 16, 2020/The Week

A diagnostic test for tuberculosis developed in India has been included in the WHO Global TB Programme. TrueNat, a new molecular test that diagnoses TB and tests for resistance to the drug Rifampicin in about 90 minutes, has been endorsed by the WHO owing to its "high diagnostic accuracy". The test has been developed by Goa-based Molbio Diagnostics that received technical assistance and resources by Geneva-based Foundation for Innovative New Diagnostics (FIND) to help commercialise it. The TrueNat kit is "highly cost effective" as compared to the American GeneXpert. It can be used in peripheral centers without an AC lab and runs on solar powered battery, according to the **Indian Council of Medical Research**. "Endorsement of the TrueNat by the WHO would enable other low and middle income countries to procure TrueNat for TB and Rifampicin resistance and support TB elimination programme in developing countries," said Dr Balram Bhargava, Secretary DHR and DG ICMR. The department of health research and the department of biotechnology picked the TrueNat kit after reviewing several indigenous technologies developed by Indian scientists and companies for detection of MDR/XDR TB. The review process was conducted at four national laboratories in the country, where scientists compared the new test to current diagnostics for tuberculosis. "After a stringent review, series of validation, feasibility studies and continuous follow-up, the 'TrueNat M.TB & Rif' assay was found to be at par with the internationally recognized molecular assay Gene Xpert in terms of sensitivity, specificity and detection of Rifampicin resistance. It was also taken up by National TB Elimination Programme after recommendation by the ICMR," the ICMR said in a statement.

## [WHO endorses tech developed by Indian scientists to detect TB, multi-drug resistant TB](#)



January 16, 2020/Financial Express

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## [WHO endorses India's TB test TrueNat for more accuracy](#)

January 17, 2020/The Pioneer

In a matter of pride for Indian scientists, the WHO Global TB Programme has included an indigenously developed TrueNat tuberculosis technology, developed by them, to detect TB and multi-drug resistant TB in view of its high diagnostic accuracy. TrueNat gives results within an hour while the conventional TB tests take at least 24 to 48 hours. According to **Indian Council of Medical Research (ICMR)** Director General Dr Balram Bhargava, the endorsement of the technology by WHO would enable low and middle-income countries to procure TrueNat for tuberculosis and Rifampicin resistance, thus supporting elimination of the disease in developing countries. The TrueNat TB test, is already part of the National TB Elimination Programme in India. “It is highly cost-effective compared to GeneXpert and can be used in peripheral centres without an air conditioned laboratory as it runs on battery which can be solar powered. “It works in two steps. In the first step, the DNA is extracted from the sputum and the second stage involves detection of tuberculosis and multi-drug resistant TB,” a senior ICMR official said. Supported by the Department of Health Research (DHR), Union Ministry of Health and Department of Biotechnology (DBT), various indigenous technologies developed by Indian scientists and companies for detection of multi-drug resistant (MDR)/extensively drug-resistant (XDR) TB were reviewed, said the official. The most promising kits were selected by an expert group and those were subjected to a double-blind validation in comparison to standard tests at four national reference laboratories of the country.

## WHO includes an Indian diagnostic test in its global TB programme

January 17, 2020/The Hindu Business Line



In a significant development, WHO Global Tuberculosis Programme has included an Indian molecular assay as initial test for detecting the disease and for identifying resistant strains of the TB bacteria.

The assay named TrueNet has been included in the rapid communication document on Molecular Assays released by WHO's Global TB Programme. It is a new molecular test that diagnosed TB as well as tests for resistance to the drug rifampicin in about 90 minutes.

The development is a fruition of efforts on the part of **Indian Council of Medical Research (ICMR)** to promote indigenous technologies for diagnosis of TB and multi-drug and extensively drug resistant TB (MDR/ XDR TB).

A team of experts reviewed various technologies developed by Indian scientists and companies for detection of MDR/XDR TB, with support from Department of Health Research in Union Ministry of Health and Family welfare, and Department of Biotechnology in Union Ministry of Science and Technology. The expert shortlisted most promising kits and conducted double blind validation in comparison to standard tests at four national reference laboratories of the country.

After a stringent review and a series of validation and subsequent feasibility studies and continuous follow-up, the TrueNat assay was found to be on par with internationally recognized molecular assay Gene Xpert in terms of sensitivity and specificity and detection of rifampicin resistance. Subsequently, National TB Elimination Programme took it up, after recommendations from ICMR.

## WHO approves India's cost-effective TB test

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A technology to diagnose tuberculosis (TB), and its multi-drug resistant variant, faster and at a lower cost by Indian researchers has received approval from the World Health Organisation (WHO). The WHO's Global TB Programme has included TrueNat TB test, a new molecular test that detects TB as well as resistance to the drug Rifampicin in about 90 minutes, in its rapid communication document on molecular investigative procedure in laboratory medicine and pharmacology.

Talking about its significance, director general **Indian Council of Medical Research (ICMR)**, and secretary Department of Health Research, Dr Balram Bhargava, in a statement said that WHO endorsement of the technology would enable low and middle-income countries to procure TrueNat for TB and Rifampicin resistance, which will help in eliminating the disease in developing countries. At 2.7 million new infections, India is home to almost a quarter of world's TB patients. The Indian government has set an ambitious target of eliminating the disease by 2025- five years before the global target. The TrueNat assay kit is highly cost-effective compared to GeneXpert and can be used in peripheral centres without an air conditioned laboratory as it runs on battery which can be solar powered. The kit works in two steps. In the first step, the DNA is extracted from the sputum and the second stage involves detection of tuberculosis and multi-drug resistant TB. Supported by the Department of Health Research (DHR), Ministry of Health and DBT, various indigenous technologies developed by Indian scientists and companies for detection of multi-drug resistant (MDR)/extensively drug-resistant (XDR) TB were reviewed.

With regards,



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