Twitter Thread by **■■■■■■■**





Remembering the Bengali scientist Dr Subhash Mukhopadhyay- the Pioneer of IVF in India, the creator of India's first and world's second child using IVF on his birth anniversary. The Father of IVF in India who was rewarded with suicide was born on 16.01.1931in Hazaribagh.

#Thread



Dr. Subhash was the son of a doctor and studied at the National Medical College in Kolkata after completing his schooling. Fascinated by innovations in gynaecological surgery from his early days as a medical student, he completed his PhD in reproductive physiology +



from the University of Calcutta before going to the Edinburgh University in UK for a PhD in reproductive endocrinology. On his return to India in 1978, he started researching ovulation and spermatogenesis. Soon after, he teamed up with Sunit Mukherji, a cryobiologist +



and Saroj Kanti Bhattacharya, a gynaecologist, to work on a method of in-vitro fertilization for a patient (Bela Agarwal) with damaged fallopian tubes. +



Dr. Subhas Mukhopadhyay (centre) in a conversation with Dr. Sunit Mukherjee (left) and Dr. Derek Gupta

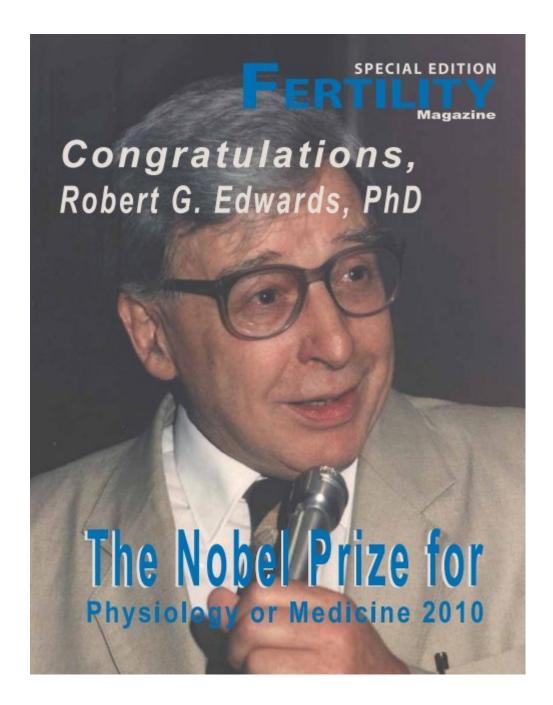
Mukhopadhyay with a double PhDstarted work on IVF techniques in the mid 60s and created history by becoming the first physician in India and second in the world after British physicians Robert Edwards and Patrick Steptoe) to perform the In-vitro fertilisation. +



On October 3, 1978, Subhash and his team announced the birth of the world's second test tube baby in Calcutta, a baby girl who was nickamed "Durga" after the Hindu goddess who embodies the feminine force of creation. +



Durga (whose parental name is Kanupriya Agarwal) was announced the India's first and world's second test tube baby who was born 67 days after the birth of the world's first test tube baby named Louis Brown. RG Edwards was awarded nobel prize in 2010 for his achievement. +



Not only had attempt of Dr. and his team at IVF succeeded, they had also successfully achieved the cryopreservation of an eight-cell embryo storing it for 53 days, thawing in DMSO reagent and replacing it into the mother's womb-a full five years before anyone else would do so. +

Continued from page 1

Surprisingly for all previous spellers at other centrus, it was transfers at other centres, it was his 3 hours, though all the endryon were building. We transfer red morphologically and generically building endryon during the personalisest WOL and she conoclosed," adds Dr. Amir.

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Supriya Sen, patient, Delhi doctor uses both embeyo-glue and lasse butching for the procedure forth treatments are included in the package for every IVF cycle so that the patient ten't burdened with high costs.

giving up."

"Every failed cycle breaks my heart. The process drains me physically and emotionally, and leaves me poorer by a few lakhs as well. I am still hopeful that one day the baby will make up for all that is lost in

the process. That reward is what makes me go through the pain of it every time I think of

Male Factor

There are a sileatio men, too A recent report established that country to percent established that the source percent man op to admit it and take the treatment, but subserva have instituted and vitament of the source of the sourc

"Changes in literative, steem and the recent trend of lateramenages also contribute to infertility. In the past two decades, there has been considerable progress in the evaluation and management of infertility. However, (VF's recens is not 100 percent and many couples experience repeated failures."

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On completion of three menths, it is considered a healthy programsy that in all probability will malure to its full course

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tyromosomal aboostmilities in heir sperm when their diet was ser in folio acid, Cosmyrns Qië as also been finied to invesse man has been trace to receive appears count and sperm mobility while VERmin E improves how sperm count," says Dr Rit Shaida, Scientific Devetor Peorl IVF & Perfilty Centre, Ranpur

increase from an estimated 1,00000 cycles currently to 2,00000 cycles oursenfly to 3,00000 cycles size 30000, deturn in an increase in the annabee of infertile couples weeking treatment. It agas. NY treatment as expensive, and the patients most of electroshop, to find the cities which

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An embryo must haloh out of its outer membrane (zone pellucide) before implanting in the uterine wall (and/anathium)

The IVF Cycle

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Then the fartilised agg (embryo) or aggs are implicated in the uterus. Embryos are loaded in a soft cathefer and are placed in the uterine cavity through the

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For a woman, the possibility of conceiving starts to diminish significantly at 32. Once the reaches 33, the decline speeds up, and by the time she's 45, it talls by half. Also, the body is more valuanch be to falso conglications. For men, the speem quality starts decreasing after the age of 43. Speem could be up to the conglication of the congl

Dr Archana Dhawan Bajaj, Norture IVF Clinic, Delhii

In Biglia, Northern DW Clinic, Deshi on potients personality: who obtaces potients personality: who obtaLinewise, Dr. Wesservan barryo on how her boughtal in Tuesfaur is striving to previous advanced and pool quality infortulars nervine of an affiredisk prior to read populars. "Other is a corporate propulars." Other is a corporate prior with the prior to read propulars. "Other is a corporate prior. We recommissily reinfluence a part of the estigations doseans for the cought does not who the treatment of the prior to prior. We recommissily reinfluence a part of the estigations doseans for cought of an UV opide fails the patient can constitute the the cought does not who the treatment of the properties cycle if an UV opide fails the patient can the registered prepared women will get a discount out the delivery charges. Those with high-risk pregnancy who need previously the form and the control of the popular size of commission through the strip of the prior section of the prior section of the properties of prior prio

*R is important for most to be a mass of their age and fettility potential during concup-tion. If you plan to delay fatherbood, posserving fertility by froncing sperm is a relatively insequencies way to keep your feetility instact. If you are older and looking

to emories, a seniori analysis evaluating mortality will provide valuable breight." Dr Monica Sachdeva, Medical Direct

Medical Director and Senior IVF Consult-ant, Pravi IVF & Fertility Centre, Kenpur

Mind Week

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THE **GENESIS IN** INDIA

On October 3, 1978, due

to the pioneering effort of Dr Subhash Mukhoor or sconeen manni-paditysy and his teem in Calcutta, a girl - Durga-was born through NF. It was the second such attempt in the world, a repeat of what his English counterparts Robert G Edwards and Patrick Steptoe had achieved barely days ago, on July 25. The news boded well for thousands of infertile couples, but there was no noise around the achievement. Perhaps because the remaps occurse the couple chose to keep mum and didn't want themselves or the child's image to be shaped by the manner of concep-tion. Butting ignoring and fallers to be and failure to be recognised for his monumental work led him to take his life on June 19, 1981. But recognition did come his way, posthumously, and 25 years after the birth of Durga, the physician was "officially" regarded as the first doctor to as the first doctor to perform EVF in India. Later on August 6, 2986. Dr Indira Hinduja and Dr Kusum Zaveri helped deliver – Harsho – India's first took halo belle. first test tube baby.

transfer using pre-implantation genetic tests that include screening diagnosis and endometrial receptivity array. This coupled with Day 5 embryo transfer has upped the secress rate in an IVF cycle, leading to full form programcy

Dr Jayesh Amin, Director, Wings Hospital, Ahmedobad

safest filter frestancia option. The politicals or succession of supposition of special substitution by extraording her eggs, which are then from an and stirred as a presention way Occasion for the decides to be a marker that again can be deferred. Duchan believe negletworsing works best for second diagnosad with causer believe negletworsing works best for second diagnosad with causer believe negletworsing works best for second diagnosad with causer believe negletworsing works best for second diagnosad with causer believe negletworsing works best for second diagnosad with causer believe negletworsing works best for second diagnosad or medical passage and disease who are prevented from becoming mothers due to personal or medical passage has been seen to be the second diagnosad or medical passage has been seen to the second diagnosad or medical passage has been seen to the second diagnosad or medical passage has been seen to the second diagnosad or medical passage has been seen to the second diagnosad with over man cannot and are caused who care where not merchant of the second diagnosad with over man cannot and had once of themse than of the second diagnosad with over man cannot and had once of the second diagnosad with over man cannot and had once of themse than of the second diagnosad with over man cannot and had once of themse than of the second diagnosad with over man cannot and had once of themse than of the second diagnosad with over man cannot and had none of themse than of the second diagnosad with over man cannot and had none of themse than of the second diagnosad with over man cannot and had none of themse than of the second diagnosad with over the work of the production of the second diagnosad with over well as advenue. Then will be her connective when the contract of the second diagnosad contract will be advenue. The will be her connective when the contract of the second diagnosad will be seen than the second diagnosad will be seen the contract of the second diagnosad will be seen than of the second

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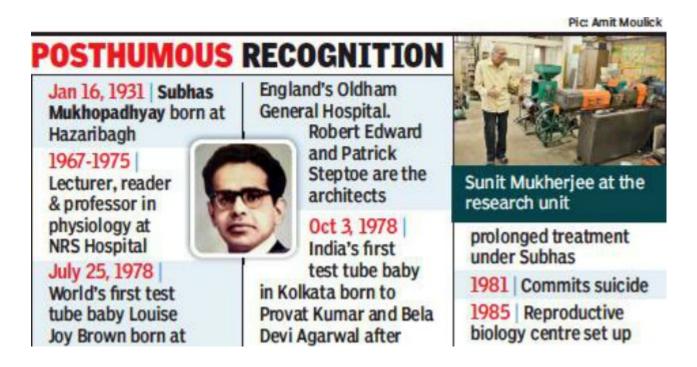
He was also the first to use human menopausal gonadotrophins (hMG) to stimulate ovaries to produce extra eggs. However, the contributions of Dr. Mukhopadhyay were never recognised by the then West Bengal and Indian Government. +

In November 1978, the West Bengal Government appointed an expert committee along with the medical association to give their verdict on the fate of Dr. Subhash Mukhopadhyay. The expert committee was presided over by a radiologist and comprising of a gynecologist, a psychiatrist, +

and a neurologist who knew absolutely nothing about the modern reproductive technology. At the end of the ridiculous farrago of exasperating dimwitted questions, his research papers were termed as "absolutely bogus." +

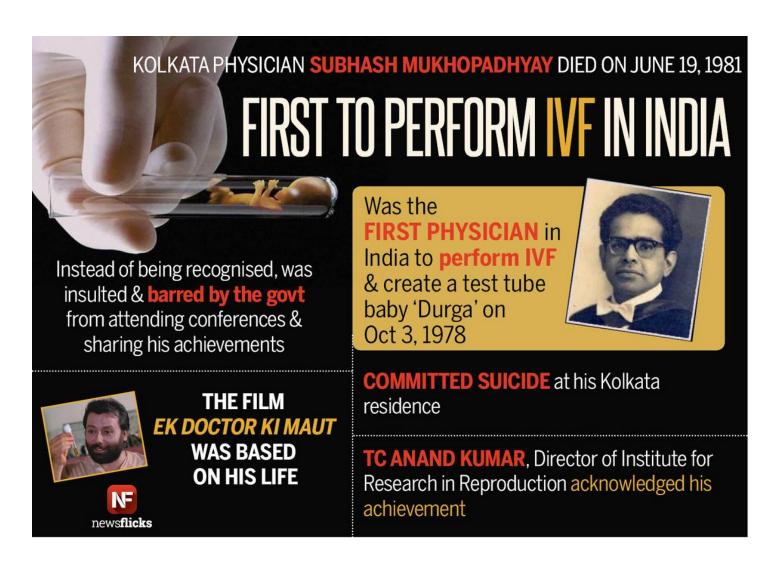
Moreover, he was handed a punishment which transferred him to the Opthalmology department, also effectively ruining his prospects of working on the hormone project. +

Facing social ostracisation, bureaucratic negligence, reprimand and insult instead of recognition from the West Bengal Government and the refusal of Government of India to allow him to attend national conferences, he committed suicide in his Calcutta residence on 19 June. 1981. +



In his suicide note, he wrote:

"I can't wait everyday for a heart attack to kill me." +



Mukherjee's research came into light when T.C. Anand Kumar, the creator of official first human test tube baby of India, Harsha Vardhan Reddy Buri, went to Kol. In 1997, Kumar was in Kolkata, it was there that he came across the research documents of Mukherjee that were given +



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to him by Dr. Sunit Mukherji. He became certain that it was Mukhopadhyay who brought India's first test tube baby into existence after going through evidences and extensively talking to Durga's parents. In his speech at 3rd National Congress on Assisted Reproductive Technology +



Sunit Mukherjee revisiting his fond memories

in Calcutta, he made an appeal that Subhash Mukherjee should be credited posthumously for creating India's first test tube baby. After all the work Kumar putting into revealing the actual father of in-vitro fertilisation in India. Two months later, he followed up his appeal +

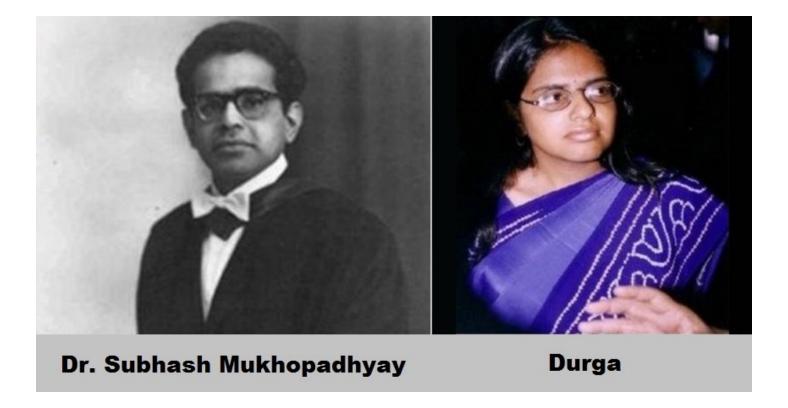
with the publication of an article in the journal current science, entitled 'Architect of India's first test tube baby: Dr. Subhash Mukherjee.' After all the work Kumar putting into revealing the actual father of in-vitro fertilisation of India, finally Mukhopadhyay was given +

the title of being the first Indian test tube baby and the ICMR recognised his work.

In October 2003, on the 25th birthday of India's first test tube baby Durga, a function was organised by ICMR and Hope Fertility Clinic in Bengaluru in which the scientific community gave +

Dr. Mukherjee his due. Anand Kumar later said, "Subhash was far ahead of his time in successfully using an ovarian stimulation protocol before anyone else in the world had thought of doing so."

In 2003, mourning the death of her scientific father, Durga spoke at an +



IVF conference and said, "I certainly do not want to be a poster girl of the IVF industry, which undermined Dr. Mukhopadhyay's work for 30 years," and finished with, "I am not a trophy but I am proud to be the living example of work of a genius." +



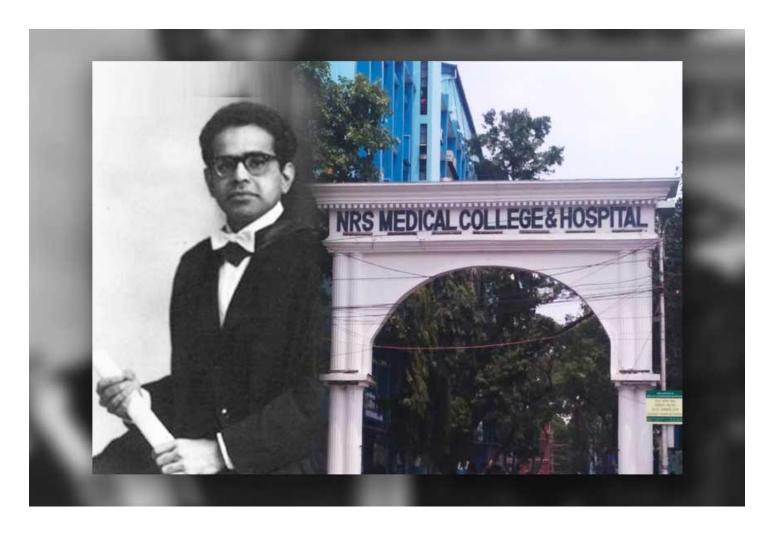
Dr. Subhash Mukhopadhyay was a man who had sacrificed hopes of children for his research. Dr. Subhash and his wife had decided not to start a family as he wanted to complete his research. The wife of Dr. Mukhopadhyay, Namita Mukhopadhyay has been paralysed and battling with +



ignominy and neglect ever since her husband committed suicide. Dr. Subhash was a very emotional person and dedicated himself to work. But he never got any support from governments and his peers. +



In 2007, the story of his life and work were included in the Dictionary of Medical Biography, a book published by Wellcome Trust Centre for the History of Medicine at UCL, London, that lists the names of 1100 scientists from 100 countries around the world who made path breaking +



contributions to medical science. He was also honoured and recognised by the Brazilian Medical Society during an event celebrating 30 years completion of IVF. Mukhopadhyay is only the third scientist from Kolkata to be included in the Dictionary of Medical Biography, UK, 2007. +



Creator of India's first test-tube baby awarded posthumously

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PRADIP CHATTERJEE

KOLKATA: Dr Subhash Mukherjee, the creator of India's first test-tube baby, who committed suicide after the Left Front government thad allegedly neglected his research and was harassed by the then strong gynecologists' lobby, has been paid due respect posthumously by the Mamata Baherjee government for his enormous contribution to modern reproductive system as it named prestigious chairs at two state-run medical colleges

(IVF) in India, created the Country's first test tube baby, Kanupriya Agarwal, alias Durga, in October 1978 inside his house in Kolkata with the help of some general apparatus help of some general apparatus and a refrigerator.

He eventually committed get recognition. He could not handle constant criticism and shunted to the Regional Instithe outright harassment he was

After coming to power, the Mamata Banerjee government has showed respect to Dr Mukherjee by naming chairs after him at the Physiology department of the NRS Medical College and Hospital and also in the School of Tropical Medicine.

The Endocrinology building at the NRS Medical College and Hospital has been named after him for his contribution towards the modern reproductive

as it named prestigious chains two state-run medical colleges to the city after him.

Dr Mukherjee, who pioneered in-vitro fertilization neered in-vitro fertilization he had to face humiliate humiliate humiliate he had to face humiliate humiliate

tions when he was transferred

Hospital. He was again transferred suicide in 1981 after failing to to RG Kar Medical College and Hospital before being tute of Opthalmology in Kolkata in June 1981 where there



Dr Subhash Mukherjee

was no physiology depart-ment. He had committed suicide within a few weeks after

The West Bengal govern-ment set up an enquiry committee to investigate the matter

in 1978. The committee concluded that his claim was false. It was said that the committee that condemned Dr Mukher jee's procedure reportedly comprised a gynaecologist, a psychologist, a physicist and

a neurologist-none of whom had any knowledge of modern reproductive technology.

The Left front govern-ment had argued that Dr Mukherjee lacked sufficient

world's second test-tube buby with a team comprising Suni Mukherji, a cryobic and Saroj Kanti Bhatta a gynaecologist. Dr Mukher jee was born at Hazaribagh is Jharkhand.

It came only 67 days after the British biologist Robert Edwards had announced the birth of the first test-tube buby

But unlike Edwards Dr Mukherjee's method of cryopreservation to pre is currently the preferred technique of medically assisted reproduction worldwide

It was the tragic tale of Dr. Mukhopadhyay that inspired the national award winning film "Ek Doctor Ki Maut (1990) directed by Tapan Sinha.

#DoctorSubhashMukhopadhyay #Bengali

