A major research fraud involving pesticide residue analysis at ICMR-NIN, Hyderabad.

Tip of the iceberg?

An investigative report by

Centre for Environment & Agriculture
Mumbai

Science is built on foundation of integrity and trust. Research misconduct is counterproductive to the production and use of scientific knowledge.

- Elezabeth George

About CENTEGRO

Centre for Environment & Agriculture (CENTEGRO), is a Mumbai based think tank. We actively work, among others, on matters that concern Indian agriculture, trade, economy, health and environment including those related to agri. input usage. Research misconduct involving agri. inputs receive our investigation for corrective actions.

Using the information collected under RTI Act, CENTEGRO uncovers a shocking research fraud in a study conducted with a budget of Rs. 41.47 lakhs by Department of Health Research (DHR), Ministry of Health and Family Welfare at the National Institution of Nutrition (NIN), Hyderabad, a unit of Indian Council of Medical Research (ICMR).

Ironically, this forms a perfect "case-study" of irresponsible conduct in public funded research institutions by a few unscrupulous scientists.

About ICMR-NIN

Indian Council of Medical Research (ICMR), Delhi is the apex body in India for promotion of biomedical research in India. It has an annual budget of over **Rs 2700 Crores.** ICMR runs 27 institutions including the National Institute of Nutrition (NIN), Hyderabad. The main objective of the ICMR-NIN is to identify various dietary & nutrition problems and advise governments on issues relating to nutrition.

Absence of adequate research oversight has aided a few unscrupulous scientists at the ICMR-NIN to turn completely dishonest with their experimental data and to commit a major research fraud compromising the research integrity.

Research Integrity

Experts assert that research integrity applies to whole research lifecycle, from preparation to submission of grant and project approvals to the publication and dissemination of findings. According to the Imperial College, London the research integrity includes *"conducting research in a way which allows others to have full trust and confidence in the methods used and the findings".*

In all the scientific research, more so in the government funded ones, maintaining research integrity is important.

Shocking Research Fraud at ICMR-NIN

Scope of study

Documents obtained in March 2025 under the Right to Information Act, 2005 show that on 11th July 2019, two scientists of ICMR-NIN, one Dr. S. N. Sinha (Principal Investigator) and Dr. M. V. Surekha (Co- Investigator) submitted a study proposal entitled ***"Neurobehavioral and biogenic amines manifestations of the agricultural population exposed to organophosphate insecticides: a study in Telangana region, India".***

This proposal and protocol were accepted at a budget of **Rs 41.47 lakhs** by the Department of Health Research (DHR), Ministry of Health and Family Welfare vide communication bearing No. DHR-ICMR/GIA/12/18/2020 dated May 2020.
As the study approved by the DHR included only

organophosphate insecticides, it by default excluded all other non-organophosphate insecticides.

The Latin legal maxim *"Expressio Unius Est Exclusio Alterius"* applies here. It means that *"what is not included, is expressly excluded"* in any proposal, contract or agreement. It means that when a proposal or agreement explicitly mentions certain items or conditions, it is implied that anything not mentioned is intentionally excluded.

Therefore, inclusion of any non-organophosphate insecticides in the study would make it illegal and ultra-vires the scope of the study. Alas, this indeed happened in this case.

However, after the proposal/project was approved by the DHR, many non- organophosphate pesticides were surreptitiously included.

There is no record available at ICMR-NIN as to why and who added the non-organophosphate insecticides, fungicides and herbicides in this DHR funded study, subsequent to receiving the approval. Changing the substantive scope of the research post approval is a dubious practice. For example, when an approved research project is meant for studying adverse effects of antibiotics, drugs such as paracetamol, aspirin, etc cannot be included.

TheDHR and ICMR-NIN must investigate who included – egregiously or deliberately – non-organophosphate pesticides in the study exclusively meant for organophosphate insecticides.

The Original Study Group

The study required analysis and confirmation of residues of organophosphate insecticides and their metabolites in blood and urine samples.

Total number of participants reported in the study	**493** people
The exposed group (exposed to OP insecticides)	**341** people
The control group (unexposed to OP insecticides)	**152** people

One study and multiple publications with contradicting data

This DHR sponsored study was completed in the year 2023. Interestingly, between 2023 and 2024, multiple research papers were published using the data generated in the single study:

Sr. no	Title of the published paper	Authors	Funded by
1	*"Assessing farmer's exposure to pesticides and the risk for non-communicable diseases: A biomonitoring study."* May 2023	Dileshwar Kumar, Sukesh Narayan Sinha, Sangaraju Rajendra and Kanika Sharma	Department of Health Research (DHR), Ministry of Health and Family Welfare vide communication bearing No DHR-ICMR/GIA/12/18/2020
2	*"Evaluating the long-term impact of pesticide exposure on the neurological health effects of Indian farmers".* Dec 2023	Dileshwar Kumar and Sukesh Narayan Sinha	-do-
3	*"Assessing the Impact of Pesticide Exposure on Neurotransmitters and Oxidative Stress in Agricultural Workers in India."* Jan 2024 **This was withdrawn in April 2025 by the ICMR-NIN after our complaint of research fraud.**	Dileshwar Kumar, Sukesh Narayan Sinha, Pallabika Gogoi, Soumya Ranjan Pradhan, Rohan Sinha, Kasturi Vasudev, K. Rajesh Kumar and Syed Sana Tabassum	-do-
4	*"Chronic exposures to cholinesterase-inhibiting pesticides adversely affects the health of agricultural workers in India."* April 2024	Dileshwar Kumar and Sukesh Narayan Sinha	-do-

5	Biomonitoring of pesticide exposure and its health implications in agricultural areas of Telangana, India: A brief data report. June 2024	Dileshwar Kumar, Sukesh Narayan Sinha, Kasturi Vasudev, Rajesh Kumar K, Gouda Balaji, Sathish Kumar Mungamuri and Vakdevi Validandi	-do-
6	Pesticide Exposure: Impacts on Neurotransmitter Levels and Oxidative Stress in Indian Farmers. August 2024	Dileshwar Kumar, Sukesh Narayan Sinha, Pallabika Gogoi, Soumya Ranjan Pradhan, Rohan Sinha, Kasturi Vasudev, K. Rajesh Kumar and Syed Sana Tabassum	-do-

As could be seen, all these papers were based on the data set derived from single original study titled ***"Neurobehavioral and biogenic amines manifestations of the agricultural population exposed to organophosphate insecticides: a study in Telangana region, India"*** funded by the DHR.

About the First Author

Mr. Dileshwar Kumar is working as a Project Scientist - B at ICMR-NIN, Hyderabad. He is also pursuing PhD at Osmania University Hyderabad.

The title of the PhD thesis initially allotted to him in the year 2021-22 was verbatim same as that of the DHR funded study i.e *Neurobehavioral and biogenic amines manifestations of the agricultural population exposed to organophosphate insecticides: a study in Telangana region, India.* However, in the year 2024 the title of the thesis was changed to ***"Assessing the effect of pesticide residues on biogenic amines (neurobehavioral) in the agricultural population exposed to pesticides in Telangana, India"***. Reasons for this change are not known. Available information shows that this PhD student also received CSIR fellowship (09/484(0055)/2018-EMR-1). Can a CSIR fellowship cover a DHR funded study?

About Salami slicing

The multiple publications originating from a single study represent "salami slicing". It is an unethical practice where the researchers divide a single study's findings into many smaller publications in different journals to inflate their publication count on the researchers CV to advance in their careers. According to the US-Office of Research Integrity (US-ORI), "salami slicing" can result in the distortion of the

literature leading unsuspecting readers to believe that the data presented in 'each salami slice' (i.e. in each journal) is derived from a different subject sample. Salami publications can give the impression that more research had been conducted than was actually real.

Artificial enhancement of the number of publications is a serious act of research misconduct according to Council of Scientific and Industrial Research (CSIR). The same should apply in ICMR institutions too.

It is surprising that none of these papers directly or indirectly describe or dwell on the title of the original study which was to ***"Neurobehavioral and Biogenic amines manifestations of the Agricultural population exposed to organophosphate insecticides: a study in Telangana region, India"***. To *be bona fide* and of relevance, the research must directly relate to its title.

Pertinently, in all these salami publications, Dr. M. V. Surekha, the Co- Investigator, was conspicuous by her absence. Instead, many others (external to the ICMR-NIN) were shown as co-authors. The external list included one Ms. Syed Sana Tabassum from KL Deemed to be University, Andhra Pradesh and one Mr. K. Rajesh Kumar from National Institute of Technology, Bihar.

The Principal Investigator Dr. S. N. Sinha owes an explanation for onboarding all and sundry as authors in this DHR-funded study.

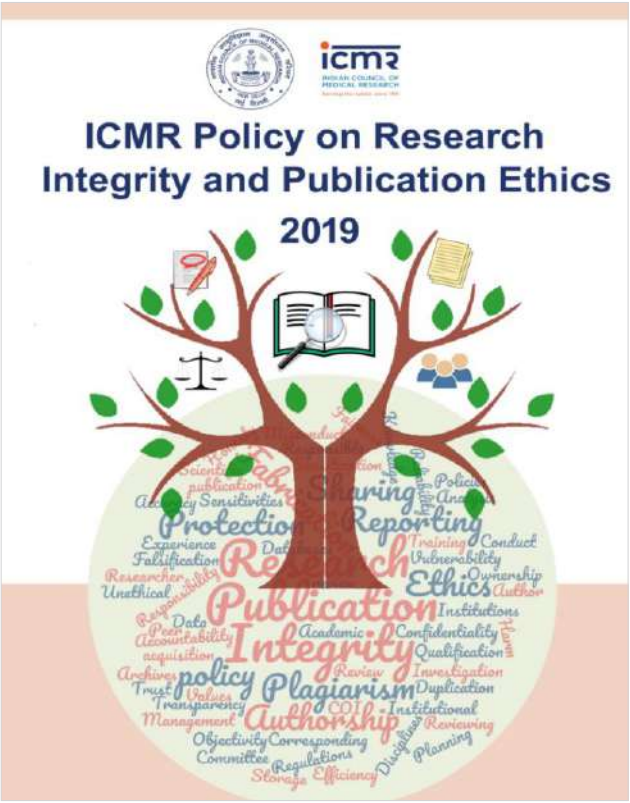
What makes these multiple salami slicing publications a complete farce?

Simple, they were all built on fake and fabricated data.

Data fabrication refers to creating fake data or results that were never obtained through genuine, credible and demonstrable scientific/laboratory experiments. Data fabrication is a serious form of research fraud. In this case, the research fraud involves government scientists at the NIN and researchers from three different universities, including a PhD student.

This represents a large-scale of research fraud at the ICMR-NIN using taxpayers' money for personal gains. Research fraud is often a collaborative fraud involving many people at various levels in the research institution.

ICMR Policy on Research Integrity and Publication Ethics, 2019 requires that the corresponding author (in this case Dr. Sukesh Narayan Sinha) should submit the final draft to Research Integrity Officer (RIO) and the Director of NIN to rule out research misconduct. This Policy requires, *inter alia,* the corresponding author to certify that:



- Authors are not involved into any research misconduct.
- Approval from Scientific Advisory Committee (SAC) was obtained.
- The lead investigator shall be responsible for any legal issue related to research misconduct.
- All raw data in the manuscript are kept securely.

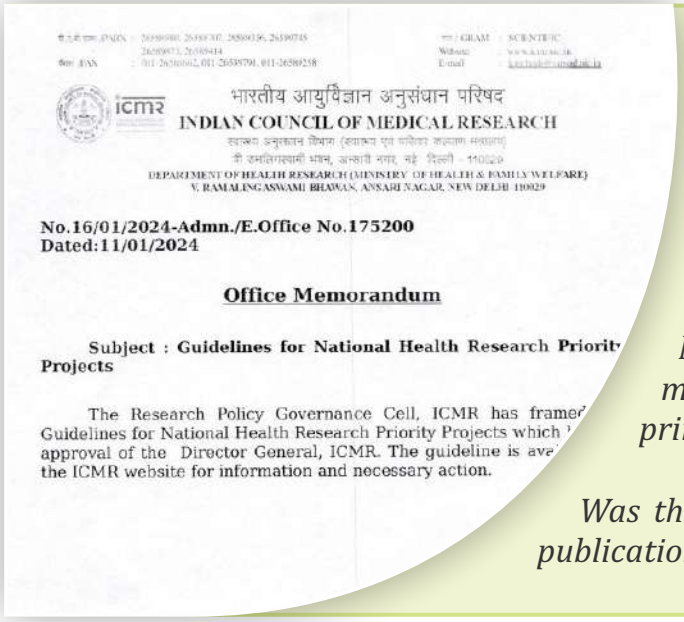
Our questions:

1. How did the egregious errors and fake data in the published articles remain unnoticed by the SAC, RIO and the Director even after publication?

2. What kind of review, if any, was done at the NIN before clearing the manuscript for publication?

3. DHR was regularly receiving a copy of the progress report. Did they not notice the fundamental errors in their own sponsored study?

4. Who takes the responsibility now for the egregious errors and fake data in the published articles?



भारतीय आयुर्विज्ञान अनुसंधान परिषद
INDIAN COUNCIL OF MEDICAL RESEARCH
DEPARTMENT OF HEALTH RESEARCH (MINISTRY OF HEALTH & FAMILY WELFARE)
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No.16/01/2024-Admn./E.Office No.175200
Dated:11/01/2024

Office Memorandum

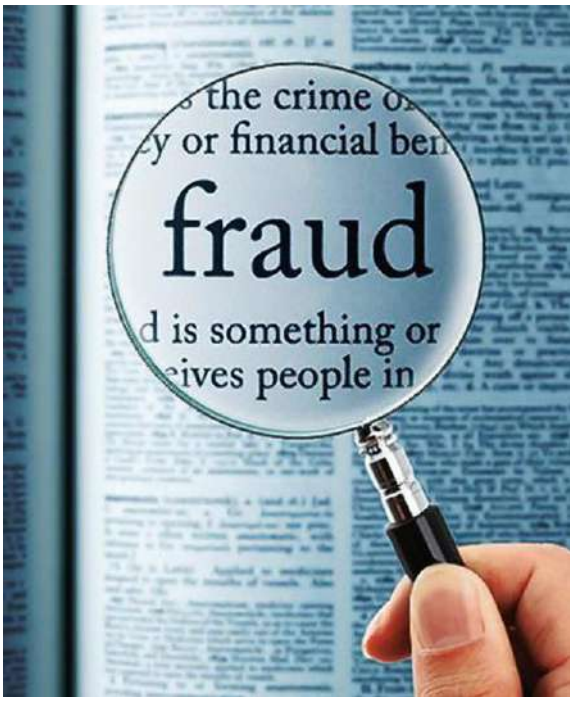
Subject : Guidelines for National Health Research Priorit Projects

The Research Policy Governance Cell, ICMR has framed Guidelines for National Health Research Priority Projects which approval of the Director General, ICMR. The guideline is ava the ICMR website for information and necessary action.

ICMR publication policy guideline, 2024 requires *"Primary publications emanating from the project would be published whereby all site Principal investigators, Co-Investigators, Coordinators and other Experts as decided by ICMR will be given due credit depending upon their scientific contribution. None of the study sites will publish separate manuscript(s) from their own site data prior to primary publications....".*

Was this followed in this case? Where is the primary publication?

How was the research fraud at the ICMR-NIN decoded and exposed?



The 'salami slice' articles carried tell-tale signs of research fraud to the discerning eyes. Therefore, a request was filed under the RTI Act in the month of October 2024, seeking to have all the raw data behind this publicly funded study. The ICMR-NIN initially refused to share any data citing an inappropriate exemption under the RTI Act. The ICMR-NIN came forward to share all the relevant information and data only after the matter was appealed before the Central Information Commission, Delhi.

Nearly 400 pages of documents/raw data were collected under the RTI Act from ICMR-NIN in March 2025.

The ability to detect fabricated data in research papers requires skill and dedication with a strong sense of purpose. A careful comparison/ analysis of the salami sliced articles with the data collected under the RTI Act brought out the skeletons from the cupboard.

What are the fake, fabricated and deceptive elements in the published articles?

1. **The study originally approved by DHR was limited to organophosphate insecticides. However, the NIN researchers subsequently included several non-OP pesticides in the study. This included Acetochlor, Allethrin, Butachlor, Carbendazim, Difenoconazole, Fenamidone, Imidacloprid, Mepronil, etc. In fact, non-OP pesticides formed 40% share in the study meant for OP insecticides. This was a major confounding factor leading to distortion of results. There is nothing on record to show that the DHR accorded permission to study non-OP insecticides.**

   The covert inclusion of non-OP pesticides in this study was mischievous, unlawful and wrong.

- **Title of the research project approved by DHR:** *"Neurobehavioral and Biogenic amines manifestations of the Agricultural population exposed to organophosphate insecticides : a study in Telangana region, India".*

- **The proposal submitted** by the NIN scientists Dr. S. N. Sinha and Dr. M. V. Surekha on 11th July 2019, claimed *"the novelty of our proposed study is to find a correlation between OP exposure, concentration of biogenic amines and neurobehavioral changes.....The proposed study would enrol people with possible exposure to OP pesticides..... The study involves collection of blood and urine samples from OP exposed workers of Telangana.*

- ❑ However, after obtaining the approval from DHR, the NIN researchers strangely included 14 non-OP pesticides for the study such as Acetochlor, Allethrin, Butachlor, Carbendazim, Difenoconazole, Fenamidone, Imidacloprid, Mepronil, etc

- ❑ Infact, non-OP pesticides form **40%** share in the study. This is the major confounding factor leading to distortion of results.

Questions:

- ✓ How can non-OP pesticides be included in the study meant for assessing exposure to OP insecticides?
- ✓ Who permitted Dr. S. N. Sinha and Dr. M. V. Surekha to breach the "substantive content" of the original project as approved by DHR in 2020?

2. There's nearly 100% exposure to pesticides in the blood samples taken from both exposed and unexposed (control) group. Unexposed (control) group was practically absent. Therefore, there was no baseline for comparison and meaningful inference. The study design was fundamentally flawed.

- ❑ The objective of the project/study was to determine if exposure to Organophosphate (OP) insecticides would be associated with health outcome in the exposed group. The control group was expected to be not having any exposure to OP insecticides in order to have any meaningful conclusions.

- ❑ **The manuscript of research paper titled** *"Evaluating the long-term impact of pesticides exposure on the biological health in Indian farmers."* claims that **the control group had no direct contact with pesticides and lived far away from areas where pesticides were routinely used.**

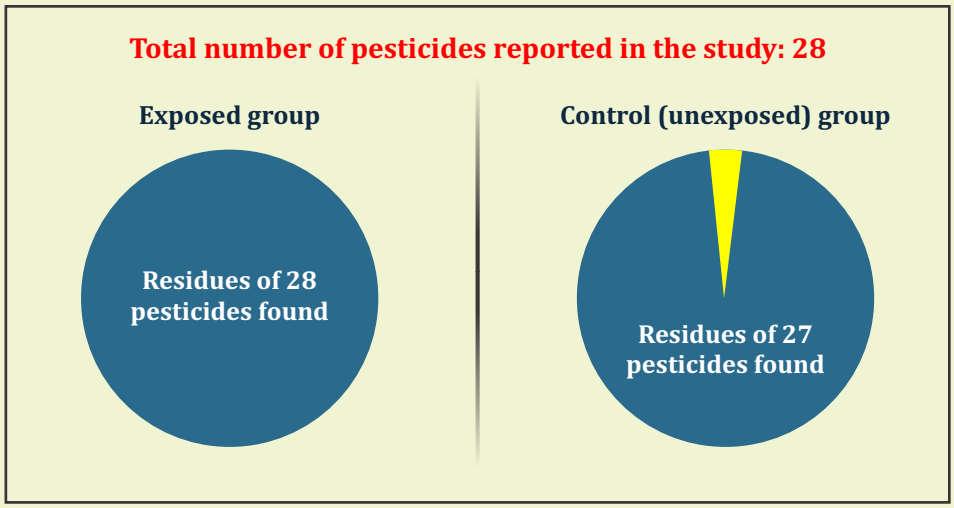
- ❑ The information collected under **RTI Act** shows that **both the exposed group and control group were selected from 15 agricultural villages in three district of Telangana state.**

- ❑ Pesticides residues were found by NIN scientists equally both in the exposed group and control (unexposed) group.

- ❑ When the control group mirrors the exposure of the other group (exposed), it shows a serious flaw in the choice of control group – indicating a lack of true association between the exposure and health outcome.

- ❑ The use of inappropriate control group makes this study and its findings invalid.

No difference between the exposed and unexposed (control) group!



All the pesticides except one were found in the control group, too.

Even a junior college student with basic knowledge of statistics would term this study unacceptable.

Surprisingly, this fundamental flaw remained unnoticed and the study not junked by the NIN/ICMR.

Failure to select the appropriate control group invalidates the entire study.

Almost all samples showed residues of pesticides

Type of sample	Sample size	No. of samples showing pesticide residues	Share of samples showing pesticide residues
Exposed Group	341	337	99%
Control Group	152	146	96%
Total number of sample	493	483	98%

Source: Information collected under RTI Act

- There is nearly **100%** exposure to pesticides in both exposed and unexposed (control) group.
- Unexposed (control) group is practically absent. Therefore, there is no baseline for comparison.
- Residues of pesticides that were never registered/sold/used in India also showed up in 100s of blood samples. **Implausible**!

3. **Zero chemical biological and clinical plausibility:** Residues of five pesticides (Chlorpyrvinophos, Fenamiphos, Omethoate, Isopropalin and Mepronil) that were never produced, imported, registered or used in India were liberally found in the blood samples of both exposed group and control group. This showed false claims and data fabrication.

These wild claims of finding residues exotic pesticides in as many as 493 blood samples were not checked for chemical, biological and clinical plausibility. Plausibility check is important to exclude false claims. The researchers of this fake and fabricated study were, clearly, unaware that these pesticides were never used in India.

List of exotic pesticide residues found in the study .

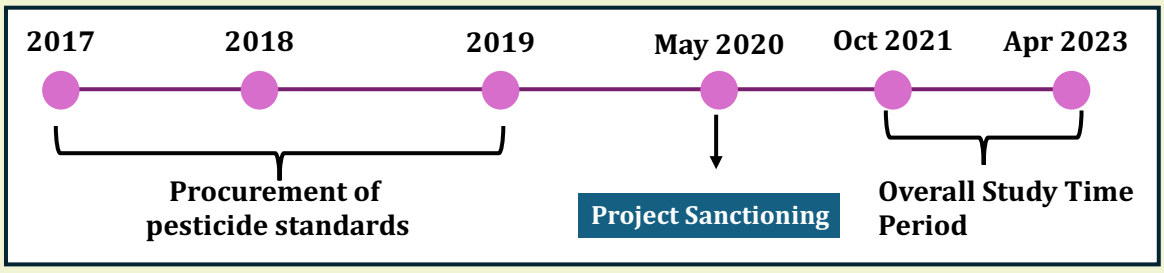
Sr. No	Pesticide Name
1	Chlorpyrvinophos
2	Fenamiphos
3	Omethoate
4	Isopropalin
5	Mepronil

4. **Old, unusable and shelf-life expired pesticide standards were used in this study. This, by itself, would invalidate all the findings.** According to the information collected under RTI Act, the pesticides standards produced as early as 2012 were also used in the study conducted a decade later, between 2021-2023.

Dr. S. N. Sinha and Dr. M. V. Surekha were allotted Rs 9 lakh for the purchase of fresh pesticide standards, but they did not buy any fresh standards for the analysis. Instead, they used old and obsolete pesticides standards. Did they return this unspent money of Rs 9 lakh back to DHR? Or was it misappropriated?

In their proposal sent to DHR in the year 2019, the project investigators from the ICMR-NIN assured that high purity pesticides standards would be procured for estimation of OP pesticides residues in the blood and urine samples. This was not done.

Use of pesticide standards after their expiration date.



- Pesticide standards are crucial for accurate residue analysis using LC-MS.
- The pesticide standards used in this study were procured in the year 2017 and 2019, long before the project got sanctioned by DHR (May 2020), according to information collected under RTI Act
- While seeking a budget of **Rs. 41.47 lakhs** for the study the project investigators said, *"the high purity standard and internal standard will be purchased for an estimation of OP pesticides".*
- Subsequently, this was not followed. Instead, old standards that crossed their expiration dates were used. This makes the entire pesticide residue analysis invalid and not reliable. Who takes the accountability at the NIN for this fatal flaw?
- There is no evidence of purchase of standards for Diazinon, Fenamidone, Monocrotophos and Triazophos in the years 2017 and 2019.

Expired standards used for pesticide residue analysis

Name of Pesticides	Date of Purchase of Pesticide Standards	Invoice No	Date of Expiry of Pesticide Standards	Overall Study Time Period
Alachlor	**19/12/2017**	**KA2310070079**	**April 2019**	**Oct 2021 – April 2023**
Allethrin	**04/06/2019**	**KA19410030622**	**Sept 2021**	**Oct 2021 – April 2023**
Dichlorvos	**19/12/2017**	**KA2310070079**	**Feb 2020**	**Oct 2021 – April 2023**
Dimethoate	**19/12/2017**	**KA2310070079**	**Aug 2021**	**Oct 2021 – April 2023**
Quinalphos	**19/12/2017**	**KA2310070079**	**Nov 2018**	**Oct 2021 – April 2023**

Source: Information collected under RTI Act
Note: These are only representative examples

5. Inconsistency in number of people (participants) used in the study involving blood and urine analysis evidently showed data fabrication. One published paper showed the total number as 493 while another showed it as 525!

The mean value for Acephate residues in the exposed group was shown as 12.29 ± 4.20 ng/ml from 11 samples in one paper. In another paper, it was changed to 8.59 ± 6.39 ng/ml for the same number of samples (11).

Similar discrepancies were noticed for many other pesticides reported in the study. Another sign of data fabrication.

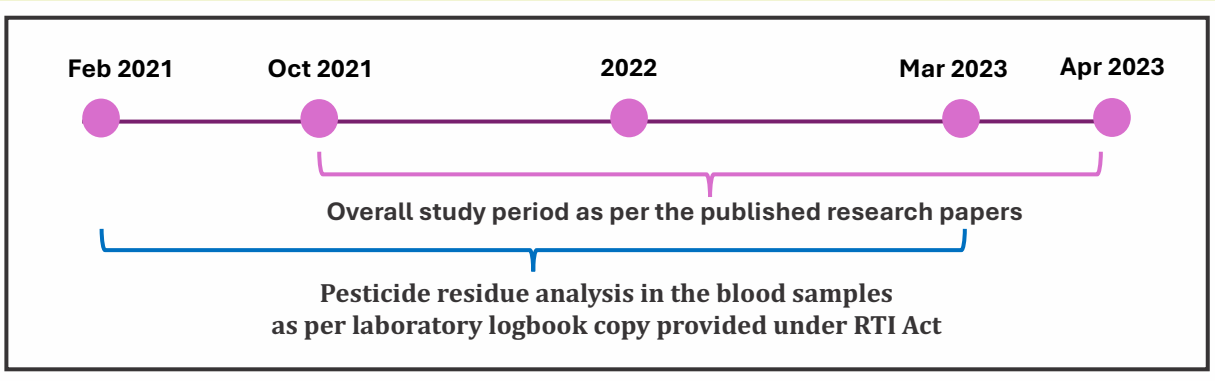
Variations in the data as regard pesticide residue analysis In 6 research papers cloned from single study- Part 3

Name of the published research papers	Number of sample in exposed group	Number of sample in control group	Total number of sample
Biomonitoring of pesticide exposure and its health implications in agricultural areas of Telangana, India: A brief data report.	N = 341	N = 152	493
Assessing the impact of pesticide exposure on neurotransmitters and oxidative stress in agricultural workers in India.	N = 342	N = 183	525

- ❑ As both the research papers originated from the same study, the number of samples cannot vary.
- ❑ In the first paper, the **mean value for Acephate in the exposed group wa shown as 12.29±4.20 ng/ml from 11 samples.** However, this was changed to **8.59±6.39 ng/ml** in the second paper for the **same number of samples (11).**
- ❑ There are similar discrepancies in other pesticides, too. A few examples are given below :
- ✓ **Chlorpyrinophos:** The number of positive samples in the exposed group was **25** in the first paper and it got changed to **17** samples in the second paper.
- ✓ **Triazophos:** The number of positive samples in the exposed group was **168** samples in the first paper and it got changed to **148** samples in the second paper.
- ✓ Such differences are sure signs of reckless data fabrication

6. According to laboratory logbook copy collected under RTI Act, the pesticide residue analysis began 8 months (Feb 2021) prior to the start (Oct 2021) of study. How to understand this?

Mismatch between the laboratory logbook and the study period!



7. P-value was generated and reported for blood samples that showed no pesticides residues. A sign of data fabrication.

Fake and Invalid P-Value

- P-value is calculated based on the observed data and the statistical model. When there is no observed data there cannot be any P-value.

Keeping this in mind, see the P-value reported by NIN scientists.

Title of the research paper	No. of sample detected for pesticide Isopropalin in control group	Mean ± SD for pesticide Isopropalin in control group	P- value for pesticide Isopropalin in control group
Chronic exposures to cholinesterase-inhibiting pesticides adversely affects the health of agricultural workers in India	0	ND	0.280
Biomonitoring of pesticide exposure and its health implications in agricultural areas of Telangana, India: A brief data report	0	ND	0.280

?

This is yet another sign of fabricated data.

8. P-value differed even when the number of positive samples and mean values remained the same. Another sign of data fabrication.

Variations in the data as regard pesticide residue analysis in 6 research papers cloned from single study

- The manuscript submitted to the NIN by the authors on 23rd April 2024 listed residue details of 19 pesticides only. However, in the final report titled *"Biomonitoring of pesticide exposure and its health implications in agricultural areas of Telangana, India: A brief data report"*, the number of pesticides listed increased to **28. What made the authors change the number of pesticides from 19 to 28?**
- Number of samples and the mean values remain the same for **Quinalphos** and **Temephos,** however, their P value differs. This is yet another sign of data fabrication.

Name of the Pesticides	Control N	Control Mean ±SD (ng/ml)	P value
Quinalphos	22	0.709±0.97	<0.001
Temephos	22	0.709±0.97	0.036

9. The pesticide concentration reported ranged from 0.20 to 15.12 ng/ml in the published articles. However, information collected from the RTI showed the maximum range went up to 155 ng/ml. Another sign of data fabrication. In the research paper titled *"Evaluating the long – term impact of pesticide exposure on the neurological health effects of Indian farmers"*, the highest value of Omethoate detected @ 45.77 ng/ml exceeded the highest limit of the range @15.12 ng/ml. Another sign of data fabrication.

Variations in the data as regard pesticide residue analysis in 6 research papers cloned from single study

- Research paper titled **"*Evaluating the long-term impact of pesticide exposure on the neurological health effects of Indian farmers".*** (2024)
- In the manuscript submitted to the NIN the authors claimed that they had found in the blood samples (exposed group) pesticide concentration ranging from **0.20 to 15.12 ng/ml.**
- But, the raw data collected under the RTI Act shows the range went up to **155 ng/ml.**
- Pertinently, the highest value was shown only as **45.77 ng/ml** (Omethoate) in the Table 3 of the same manuscript. This exceeded the highest limit of the range i.e. **15.12 ng/ml**.
- Yet, another sign of data fabrication.

10.For the same pesticide molecule (Monocrotophos), two different Limit of Detection (LOD) and Limit of Quantification (LOQ) were given in the published paper. Another sign of data fabrication

Single pesticide – but two different LODs and LOQs

Name of Pesticides	LOD ng/ml	LOQ ng/ml
Monocrotophos	0.057	0.172
Monocron (Monocrotophos)	0.024	0.073

1. What does this show ?

2. 1. The LOD and LOQ data used in the NIN study was simply fake and fabricated

2. The "learned scientists" of NIN do not have the basic knowledge that both these are Monocrotophos.

11. The Lowest Limit of Quantification (LLOQ) range as per the published article was 0.072 – 0.487 ng/ml. However, the document collected under RTI Act showed the LLOQ figure as 0.056 – 0.489 ng/ml. Another sign of data fabrication.

Differences in the LLOQ range

Detection parameters	According to 4.1.1 of the published research paper titled *"Biomonitoring of pesticide exposure and its health implications in agricultural areas of Telangana, India: A brief data report"*	According to information collected through RTI Act
LLOQ	0.072 -0.487 ng/ml	0.056 –0.489 ng/ml

- ❑ The range of LLOQ differs from the published research paper and the documents collected under the RTI Act. Who fabricated the LLOQ data?

12. Other fake, fabricated and deceptive elements in the published articles.

Mean pesticide concentration in control group was higher than exposed group.

- ❑ In the published research paper titled ***"Biomonitoring of pesticide exposure and its health implications in agricultural areas of Telangana, India: A brief data report"***, the mean concentration of three pesticides in control group were higher than exposed group.
- ❑ The pesticide **"Mepronil"** has never been used in India! This is bizarre and a sign of data fabrication.

Name of Pesticides	Exposed Group		Control Group	
	N	Mean ± SD ng/ml	N	Mean ± SD ng/ml
Nalachlor	118	0.708 ± 0.539	6	0.74 ± 0.48
Butachlor	116	5.57 ± 2.49	60	5.78±3.39
Mepronil	105	0.88 ± 1.08	50	1.06 ± 1.18

Variations in the pesticides originally selected for study and subsequent list

- ❑ Total number of pesticide analyzed using liquid chromatography-tandem mass spectrometry (LC-MS/MS) was **33**, but the count of pesticides presented in the final papers were different. In 4 papers, it was **28** and in **2** papers it showed **29.**
- ❑ **Why did the scientists arbitrarily omit the results of 5 pesticides in the final published research papers?**
- ❑ **Did anyone at ICMR or DHR seek to know this when the project proposal was submitted and processed in 2019?**

About Lower Calibration Point under SANTE 12830 Guidelines.

Analytes	LLOQ (ng/ml)	Requirement of Lower point of calibration (30% of LLOQ)	% of Lower calibration point to LLOQ used in study paper
Acephate	0.253	0.0759	39.5
Chlorfenviphos	0.153	0.0459	65.4
Diazion	0.168	0.0504	59.5
Mepronil	0.137	0.0411	73.0
Metribuzin	0.056	0.0168	178.6

Source: Information collected under RTI Act

Note: This are only representative examples

- Calibration of standards considerably deviates from SANTE 12830 Guidelines. This requires the lower point in the calibration curves should be at 30% of LLOQ, which was not followed by the NIN scientists.
- Out of 33 studied pesticides, the lower calibration point for 24 pesticides were on the higher side - than the level required i.e. 30% of LLOQ.

AChE levels in the exposed group were higher!

- In the manuscript of the research paper titled "Biomonitoring of pesticide exposure and its health implications in agricultural areas of Telangana, India: A brief data report", the AChE activity (μ/mL) in the blood of the exposed and control group is given as:

Group	Mean value
Control	**28.83**
1 Year Exposed	**28.86**
2-5 Years Exposed	**28.98**

Even after 5 years of direct exposure to OP pesticides, the mean AChE level in the Exposed group remained higher that of Control group. How to understand this?

We have given all these evidence and more to NIN, ICMR, DHR, Ministry of Health and Osmania University on 2nd April 2025. None of them have given any response till this report went to the press. However, after receiving our report the erring scientists at the ICMR-NIN have silently withdrawn one out of six papers published. Why was only one paper withdrawn? All the six published papers must be withdrawn as they were all built on the same set of fake and fabricated data from a single study.

When a lake water is completely contaminated and toxic, you cannot catch and remove only one fish and claim the rest is safe for consumption! That would be ostrich like attitude. Highly questionable.

Silence by ICMR-NIN in the face of direct accusation of research fraud can be a red flag. It should be inferred as evidence of admission of guilt.

Can public funded research institutions in India afford to be silent when offered with credible evidence of data fabrication in the research papers?

The extent of research fraud in the ICMR-NIN papers certainly show existence of institutionalised system that fosters fraud, data fabrication and deception in the research conducted.

As already mentioned, research fraud is often a collaborative fraud involving many people at various levels in the research institution.

What has been brought out is perhaps only the tip of the iceberg.

The Department of Health Research, under the Ministry of Health and Family Welfare must immediately order withdrawal of all the impugned papers published.

Strong punitive action must be taken against all the researchers/authors who produced and published the fake research reports.

The study should be subject to retrospective audit and all those created and contributed to data fabrication should be severely punished.

In the year 2016, two scientists of a CSIR Institute from Chandigarh were dismissed from their services for scientific misconduct as per the directive of Honourable Prime Minister in his capacity as Head of CSIR. Similar action may be considered here.

In all the enquiry committees, CENTEGRO should be involved - being the whistle blower- upholding the principle of natural justice.

Scientific Temper - A Fundamental Duty

"The "fundamental duty" enshrined in Article 51-A (h) of the Indian Constitution states "it shall be the fundamental duty of every citizen of India to develop the scientific temper, humanism and the spirit of enquiry and reform".

The scientific temper means wisdom founded on scientific knowledge. The scientific temper is based on reason and rationality. There is, therefore, a Constitutionally mandated fundamental duty in India for the citizens to question unscientific, false, deceptive and misleading claims made in the public funded research publications and set things right."

In L. K. Koolwal vs State Of Rajasthan and Ors. reported in AIR 1988 Rajasthan 2, Jaipur Bench of Rajasthan High Court had held:

"Article 51A gives a right to the citizen to move the Court for the enforcement of the duty cast on State, instrumentalities, agencies, departments, local bodies and statutory authorities created under the particular law of the State"

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