PHILOSOPHY

THE SÜDHOF NOMENCLATURE

3.07.2025



Thomas Südhof has been setting the stage in Lindau for future high ranked researchers with lots of inaccuracies in their papers. This is "unfairly tarnishing the reputation of scientists", "there is no replication crisis", just "quite a few mistakes committed by many trainees, postdocs". /2/



Medizin-Nobelpreisträger Thomas Südhof: Wie böse ist Wissenschaft?
Ein Nobelpreisträger im Büßergewand: Bei seinem ersten Auftritt auf der traditionsreichen Lindauer Nobelpreisträgertagung lieferte der Hirnforscher Thomas ...

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https://www.faz.net/aktuell/wissen/medizin-nobelpreistraeger-thomas-suedhof-wie-boese-ist-wissenschaft-110567521.html

The video can be found at the Lindau Mediathek.

Here is my annotated list of excuses numbered as SUEDHOF1, SUEDHOF2, ...,. SUEDHOF15 in chronological order.

Is this really "an unprecedented quality initiative" as F.A.Z. <u>Joachim Müller-Jung</u> wrote?

IMHO this looks more like a larmoyant defense but form your own opinion now.

SUEDHOF1 "I'm not a chemist, so I'm not going to talk about science directly."

This is a weak deflection. As a Nobel laureate in a scientific discipline, he carries a responsi-

bility to engage rigorously with broader scientific issues—especially those affecting public trust and integrity. Summary: Expertise in a narrow field does not excuse disengagement from systemic issues in science.

SUEDHOF2 "The mistakes in our papers are due to digital image processing artifacts, not fraud."

Blaming technology doesn't absolve responsibility. Labs must maintain strict protocols as tools evolve. Oversight and verification should adapt accordingly. Summary: Image-processing artifacts are a foreseeable risk, not an exoneration.

SUEDHOF3 "AI software is now able to find issues nobody would have noticed otherwise."

This advances science, not hinders it. Better detection tools are a step forward, not a reason to dismiss errors as inconsequential. Summary: Enhanced scrutiny is progress—not an excuse.

SUEDHOF4 "The accused errors don't affect the conclusions and seem absurd to fake intentionally."

Scientific integrity doesn't rest solely on intention. Errors, even unintentional, undermine credibility and demand correction. Summary: Absence of intent does not absolve responsibility for accuracy.

SUEDHOF5 "Collaborators became collateral damage in the scrutiny, which inflates the perception of misconduct."

Widespread issues implicating multiple labs suggest systemic lapses in research oversight—not just collateral fallout. Summary: When many collaborators are affected, the problem is likely structural.

SUEDHOF6 "We're in a new era where everything is scrutinized—even by amateurs and algorithms."

Openness and scrutiny are core to science. Lamenting increased transparency suggests resistance to accountability. Summary: Increased scrutiny is essential, not a threat.

SUEDHOF7 "Some images were inserted incorrectly by mistake—we couldn't tell them apart ourselves."

If experts can't distinguish correct data, how can peer reviewers or readers trust the findings? This indicates deeper flaws in quality control. Summary: Inability to catch errors points to insufficient internal oversight.

SUEDHOF8 "Statistical errors like pseudo-replication are common and not misconduct."

Prevalence doesn't make bad practice acceptable. Misleading statistical methods compromise conclusions, regardless of intent. Summary: "Common" errors are still errors.

SUEDHOF9 "Reanalyses misunderstood our methods; our approach was acceptable in the field."

Field norms evolve, and acceptable doesn't always mean rigorous. Transparency and willingness to adapt are crucial. Summary: Methodological defensiveness isn't a substitute for clarity and rigor.

SUEDHOF10 "Science is inherently variable—different results don't mean irreproducibility."

True, but vague variability can't be used to brush off inconsistencies. Proper reproducibility requires controlled variation, not chaos. Summary: Reproducibility and variability are not mutually exclusive.

SUEDHOF11 "Fraud exists but is rare and inevitable because science is a human activity."

Accepting fraud as inevitable risks normalizing it. Scientific systems must minimize opportunities for misconduct, not excuse it. Summary: Human nature isn't a shield against ac-

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countability.
SUEDHOF12 "Most retractions, including ours, are for minor issues—not because the conclusions are wrong."
If figures are faulty, confidence in conclusions erodes. Reproducibility depends on complete integrity of data—not just overall narrative. Summary: Faulty details undermine trust worthy conclusions.
SUEDHOF13 "The journal system pushes us to overreach."
Researchers still choose to exaggerate. Blaming journals deflects personal responsibility for claims made in published work. Summary: Journals may incentivize overreach, but authors remain responsible.
SUEDHOF14 "Science is underpaid and undervalued, especially for postdocs and professors."
Compensation issues are real—but they don't excuse lapses in research standards. Integri ty should be independent of salary. Summary: Low pay doesn't justify low rigor.
SUEDHOF15 "We should communicate better, but public criticism (like letters or appeals) isn't useful."
Public critique is part of scientific discourse. Dismissing it sidelines legitimate accountability efforts. Summary: Transparency and open dialogue are essential to reform.

Thomas Südhof blends legitimate structural critiques—on pay, publishing pressure, and statistical complexity—with a pattern of defensiveness and minimization. While he correctly calls for nuanced understanding of science's limitations, his excuses often sidestep direct responsibility and risk undermining the very accountability that sustains public trust in research. Strong leadership would embrace scrutiny, not diminish it.

Ad hominem arguments – showing images of offending scientists like Elisabeth Bik and Leonid Schneider – were certainly not helpful.

Slide 20: Summary Table

	Excuse (Short)	Wikipedia Type	Academic Type
1	Not a chemist	Indirect / Misericordiam	Emotional
2	Digital errors	Factual	Factual
3	Al finds more	Factual	Factual
4	Absurd to fake	Populum / Indirect	Indirect
5	Collateral damage	Misericordiam	Emotional
6	Over-scrutiny era	Populum / Normative	Normative
7	Couldn't tell images	Misericordiam	Emotional
8	Everyone does pseudo-replication	Analogical / Normative	Normative
9	Our methods = standard	Authority	Authority
10	Variability is normal	Analogical	Factual
11	Fraud is human	Analogical / Normative	Normative
12	Retractions are minor	Indirect	Indirect
13	Journals force it	Populum / Normative	Indirect
14	Scientists underpaid	Misericordiam	Emotional
15	Letters don't help	Indirect / Normative	Normative

Disclaimer – Although dispised by Südhof, I used some LLM for video transcription, and another one for interpretation and language correction.

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