Publication Ethics – from a journal editor’s and a researcher’s experience

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My career

- Kyoto U MC
- Sumitomo Chemical Research and Development 16 y
- RIKEN PSC Research 7 y
- KIHARA Inst, YCU Research and Education 3 y
- Osaka U Advanced education and Research 4 y
Peptide Separation Methodologies for In-Depth Proteomics in Arabidopsis

SS-mPMG and SS-GA: Tools for Finding Pathways and Dynamic Simulation of lycopersicum

GABA Accumulation, Dwarfism and Infertility in the Tomato (Suppression of Glycyrrhiza uralensis)

Engineered Yeast

Combinatorial Biosynthesis of Legume Natural and Rare Triterpenoids in lycopersicum

GABA Accumulation, Dwarfism and Infertility in the Tomato (Suppression of Catharanthus roseus)

Coupling Deep Transcriptome Analysis with Untargeted Metabolic Profiling in Genomics, Systems Biology and Evolution

Benzylisoquinoline Alkaloid Metabolism: A Century of Discovery and a Brave New World

Anti-Cancer Alkaloid Camptothecin and Anthraquinones Ophiorrhiza pumila

Coupling Deep Transcriptome Analysis with Untargeted Metabolic Profiling in Data

CathaCyc, a Metabolic Pathway Database Built from Genomics, Systems Biology and Evolution

Proteins, Enzymes and Metabolism

Redistribution

Copper Regulates Primary Root Elongation Through PIN1-Mediated Auxin Environmental and Stress Responses

Transcriptome Analysis of Developing Ovules in Rice Isolated by Laser Microdissection

Growth and Development

Contents by subject areas
The Journal of Bioscience and Bioengineering (JBB) aims to contribute to the advancement and dissemination of knowledge and technology in the fields of bioscience and biotechnology. JBB publishes papers on a broad range of topics in the areas of enzymology, physiology and biotechnology of microbes, plants, and animals; genetics, molecular biology, and gene engineering; brewing and food technology; environmental biotechnology; biochemical engineering; cell and tissue engineering; protein engineering; Biomedical engineering; and bioinformatics. Genomics, systems biology, and structural biology, which hold much promise for the future, are also within the scope of JBB.

- **Editor-in-Chief**: Masahiro Takagi  
  (Japan Advanced Institute of Science and Technology, Japan)
- **Impact Factor**: 1.737
- **5-Year Impact Factor**: 1.992
- **Eigenfactor Score**: 0.01054 (42/159 in Biotechnology & Applied microbiology)
- **Issues per year**: 12
- **Submission to First Decision**: 24.3 days (2012)
- **Submit Article**: http://ees.elsevier.com/jbiosc
- **Instructions to authors**: http://www.sbj.or.jp/e/jbb/jbb_instructions.html
- **Full text**: http://www.sciencedirect.com/science/journal/13891723 (ScienceDirect)
Case 1. How do you act?

Urgent!!

No negative control!!
Case 1. How do you act?

Urgent!!

No negative control!!

How about put the same photo?
Case 1. How do you act?

Urgent!!

No negative control!!

How about flit horizontal?
Case 1. How do you act?

Urgent!!

No negative control!

How about putting the same photo?
This is data fabrication (捏造) or data falsification (偽造)

It’s just a negative control, but it surely is an important data!!
Case 1. How do you act?

Even if you are in hurry...
Case 1. Answer is “Do it!”

Even if you are in hurry...

Suzuki et al. (2004) Plant J
“In Figures 2A and 2C, and Figures 3A, 3B, 3D and 3E, rRNA photomicrographs were manipulated and repeatedly used.”
Case 2. How do you act?

Before
Case 2. How do you act?

Before
Warning on the use of photographs and images

Case report

A photograph published on an internet website was used in a research paper without the photographer’s permission. The Institute and the researcher that authored the paper apologized to the photographer, explaining that the photo cannot be deleted from the paper as it was already published. A request was made to the newspaper company that published the photo not to use the photo in question for any publications in the future. The case was resolved by paying the photographer a fee for the use of the photograph.
Before using copyrighted photos or images in papers, websites or other media, make sure that you comply with the following:

• Please comply with all laws related to intellectual property so that you can avoid trouble and concentrate on your research.
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• Obtain permission from the intellectual property owner even if the photo or image is easily obtained on an internet website.
• Do not use material if you are not sure who owns the intellectual property.
Case 2. Answer is “Do not use it!”

After
Case 3  How do you act?

Activation tagging

Enhancers  →  Gene transfer  →  Gene X

Activated

Walden’s excellent papers


Gene Y

Not activated
Walden’s excellent papers:


Vector: pPCVICEn4HPT

However,

*Fig. 2. Growth of axi 159 protoplasts in the absence of auxin. Protoplasts were isolated (16) from 6-week-old plants of SR1 tobacco (left) and axi 159 (right), cultured in the presence (top) or absence (bottom) of auxin, and embedded in agarose 1 week after isolation. The photograph was taken 4 weeks later.*

Science (1992) 258, 1350-1353
Re-evaluation of phytohormone-independent division of tobacco protoplast-derived cells

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Summary
We have used a [3H] thymidine incorporation assay and microscopic observation in order to reassess recently published data dealing with the response of tobacco protoplasts to phytohormones, lipochitoooligosaccharides and peptides (Harling et al., 1997; Hayashi et al., 1992; Miklashevichs et al., 1996; Miklashevichs et al., 1997; Röhrig et al., 1995; Röhrig et al., 1996; van de Sande et al., 1996; Walden et al., 1994). These proliferation assays reveal that, in contrast to published data, isolated cells of the investigated mutant plant lines axi159 (Hayashi et al., 1992; Walden et al., 1994), axii/1 (Harling et al., 1997) and cym (Miklashevichs et al., 1997), which were generated by activation T-DNA tagging, were unable to grow in the absence of auxin or cytokinin. Furthermore, lipochitoooligosaccharides which play a key role in the induction of nodules on roots of legumes were unable to promote auxin- and cytokinin-independent cell division in tobacco protoplasts as claimed by Röhrig et al. (1995, 1996). The finding of van de Sande et al. (1996) that ENOD40 confers tolerance of high auxin concentration to wild-type tobacco protoplasts was also reinvestigated. The results of our investigations show that we were unable to reproduce the proliferation data presented in this study, which were obtained by counting tobacco protoplast-derived cells undergoing division. In total, none of the published data on phytohormone-independent division of tobacco cells could be reproduced.

Introduction
This paper reports on the use of a new assay to re-examine earlier published work dealing with the hormonal control of tobacco cell division (Harling et al., 1997; Hayashi et al., 1992; Miklashevichs et al., 1996; Miklashevichs et al., 1997; Röhrig et al., 1995; Röhrig et al., 1996; van de Sande et al., 1996; Walden et al., 1994). In these papers, the division frequency of isolated tobacco cells was preferentially determined by microscopic counting of cells undergoing proliferation. In order to independently test these data, we used cell division assays which are based either on the incorporation of [3H] thymidine into the DNA of proliferating protoplast-derived cells or on the ability of dividing cells to form microcalli after embedding in agarose. Here we report on the reproducibility of data in the published work in question.

Results and discussion
Cultured tobacco protoplasts have been used to dissect the response of plant cells to phytohormones, peptides and lipochitoooligosaccharides (LCOs) as a novel class of plant growth regulators. Under defined culture conditions, these cells proliferate and form calli when the phytohormones auxin and cytokinin are added to the medium.
Case 3. Answer is,.,
Case 4. Who is responsible?

After published........

Journal of research something

Study on research ethics and authorship

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I didn’t know!!
Case 5. Urgent again!

Even if you are in hurry...

Submit to JBB
Submit to XXX

Don’t do it!
Case 6. What are different?!

Yes, gene is different, but,,, 
科学とエセ科学の比較

• 新しい証拠があれば喜んで考えを変える
  – 考えを変えない
• 同僚（同じ分野の研究者）同士で情け容赦のない評価をする
  – 同僚同士の評価はない
• すべての新発見を考慮に入れる
  – 都合のより発見だけを選ぶ
• 批判を歓迎する
  – 批判を陰謀とみなす
• 証明可能な結果
  – 再現性がない
• 限定された有用性を主張
  – 幅広い有用性を主張
• 正確な測定
  – おおよその測定

記者有論、編集委員高橋真理子、朝日新聞 (2014.1.8)より
Science vs. Pseudo-science

• Happy to change hypothesis with new data / unhappy to change
• Peer review / no peer review
• Integrate all new data / “Cherry picking”
• Welcome criticism / regard criticism as a plot
• Reproducible / no reproducible
• Insist limited advantage / -broad advantage
• Accurate measurement / rough measurement

Kisha-Yuron, Mariko Takahashi, editor, Asahi Shimbun (2014.1.8)