

# 표절방지 프로그램의 응용 사례

최인홍

의편협 교육연수위원회

Yonsei Medical Journal

연세대학교 의과대학 미생물학교실

“I am facing an unusual problem with the manuscript you sent me to review. A few days before you sent me this manuscript, a manuscript with the **same title and very similar abstract and content containing almost the same data** was sent to me for reviewing from a different journal (**Journal of Renin Angiotensin Aldosterone System**). Please advice me how do deal with this **serious ethical issue**.”

Best regards,  
Vangelis

Vangelis G. Manolopoulos, Ph.D  
Associate Professor,  
Laboratory of Pharmacology,  
Democritus University of Thrace  
Greece

# 중복게재와 아시아 과학자

This type of misconduct is of all times, but with the **expansion of Asian science<sup>47</sup>** with **a lot of pressure to publish**, it may be that we are seeing just the tip of an iceberg. **Programmes that can spot plagiarism** and that are routinely used for screening students' papers may become an **unavoidable tool for Editors** (and reviewers ??) and are being optimised for even comparing strings of texts in different languages.<sup>[48](#),[49](#)</sup>

# 표절은...

Elias Alsabti, a cancer researcher, reworked articles from lesser known scientific journals into entries that he submitted for publication elsewhere. In the late 1970s, he worked as a cancer specialist for various American research institutions, moving on when his utter lack of knowledge and understanding was noticed. He is estimated to have published 50 to 60 plagiarized articles.



# 논문 출판과정에서 표절 및 중복게재 찾기

-PubMed, KoreaMed, PubMed Central  
-Keyword 및 주저자

- 논문 심사과정에서 **심사자** 또는 출판 후 **독자**가
- 논문 출판 과정에서 **편집자**가

-eTBLAST  
-Turnitin  
-Crosscheck

# eTBLAST & Déjà vu



Harold “Skip” Garner never intended to become an enforcer. The affable computational biologist set out 7 years ago with a modest enough goal: to access the scientific literature more efficiently. With colleagues, he crafted a computer program called **eTBLAST** that could detect similarities in published **abstracts**, making it relatively easy to sort through the **19 million papers in a database like MEDLINE** and pick out those in a narrow slice of science.



Riding high. Skip Garner, with one of his horses, runs Déjà vu and receives dozens of tips—and complaints.

# eTBLAST & Deja vu



Drag image to reposition. Double click to magnify further.

	1995][Medline]	al., 1996][Medline]								
2	16475345 [He, Hong et al., 2005][Medline]	16494333 [Liu, Junfeng et al., 2006][Medline]	2	eng   eng	109.18	64.54	0.59	Y	DUPLICATE	2007-02-14
3	16734501 [Buttershill, Anna J et al., 2006][Medline]	16526829 [Buttershill, Anna J et al., 2006][Medline]		eng   eng	138.75	132.77	0.96	Y	DUPLICATE	2007-02-14
4	8199193 [Birchmeier, W et al., 1994][Medline]	7587628 [Birchmeier, W et al., 1995][Medline]		eng   eng	32.55	25.79	0.79	Y	DUPLICATE	2007-02-14



Entry Details [Similarities] [Differences]

**Osteoclastic resorption of Haversian systems in cortical bone of femoral neck in aged women. A scanning electron microscopic study**

Chai, B;Tang, X;Li, H

**OBJECTIVE:** To reveal the sequence of events of osteoclastic resorption taking place in the cortical bone of the femoral neck in aged women. **MATERIAL AND METHODS:** The cross sections of cortical bones of the femoral neck from 7 aged women who underwent endoprosthetic replacement for intracapsular hip fracture, were processed and subjected to scanning electron microscopic observation. **RESULTS:** The cortical bone sections revealed enlargement of the Haversian canals. On the inner linings of the enlarged canals many oval resorption lacunae could be found, reflecting osteoclastic resorption of the Haversian systems. The osteoclastic resorption with subsequent enlargement of the Haversian canals into round or oval cavities took place first over the inner portions of the cortical sections, thereby rendering these areas porotic (cancelization). These processes of the Haversian systems and canals then gradually emerged over the central and eventually over the outer areas of the cortical bone, and the entire cortical bone became porotic. Meanwhile, the inner porotic portion of the cortex turned into trabeculae (trabecularization) and became gradually resorbed, resulting in thinning of the medial cortex. **CONCLUSIONS:** Cortical cancelization, trabecularization and thinning compromised the material strength of the femoral neck so that fracture would ensue even with trivial injury

Chin Med J (Engl); (Sep-1996)

Medline : 9275340 ; Deja vu: 1

**[Osteoclastic resorption of Haversian system of femoral neck cortex in aged women]**

Chai, B;Tang, X;Tan, Z

Osteoclastic resorption was studied with scanning electron microscope on cross sections of cortical bone of femoral neck collected from 7 aged women with an average age of 72.4 years, who underwent endoprosthetic replacement for intracapsular hip fracture. The cortical bone sections revealed enlargement of the Haversian canals. On the inner linings of the enlarged canals there were many oval-shaped resorption lacunae, reflecting osteoclastic resorption of the Haversian systems. The osteoclastic resorption with subsequent enlargement of the Haversian canals into round or oval cavities took place first over the inner portions of the cortical sections, thereby rendering these areas porotic (cancelization). These processes of the Haversian system and canals then gradually emerged over the central and eventually over the outer areas of the cortical bone, and the entire cortical bone became porotic. In the meanwhile, the inner porotic portion of the cortex turned into trabeculae (trabecularization) and became gradually resorbed, resulting in thinning of the medial cortex. Cortical cancelization, trabecularization and thinning so compromised the material strength of the femoral neck that fracture would ensue even with trivial injury

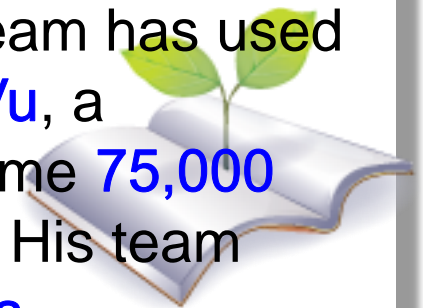
Zhonghua Wai Ke Za Zhi; (May-1995)

Medline : 7587703 ; Deja vu: 2

# Entire-paper plagiarism caught by software

When Eric Le Bourg, a French biogerontologist, came across a paper in a **Korean journal** recently, he almost fell off his chair; the entire article — text and graphs included — had been taken from one of his earlier articles. "It was **plagiarism from beginning to end**," he says. "I was astonished; it was **pure cut and paste**."

Such blatant copying of an entire article is not unknown, says Harold Garner, a researcher at the University of Texas Southwestern Medical Center in Dallas. Garner's team has used its eTBLAST text-matching software to build **Deja Vu**, a continually updated database that already holds some **75,000 abstracts listed in Medline that seem highly similar**. His team has so far **found dozens of near-100% clone papers**.





It's not always easy  
to spot an original.

Keeping it real since 2003.



- **150+ million** archived student papers
- **90,000+** journals, periodicals & books
- **1+ million** active instructors
- **14+ billion** web pages crawled
- **10,000** educational institutions
- **20+ million** licensed students
- **126** countries
- 1996년부터 Turnitin에 제출된 1억 5천만 건의 논문 및 과제물
- 2008년부터 연세대학교 의학도서관 비치



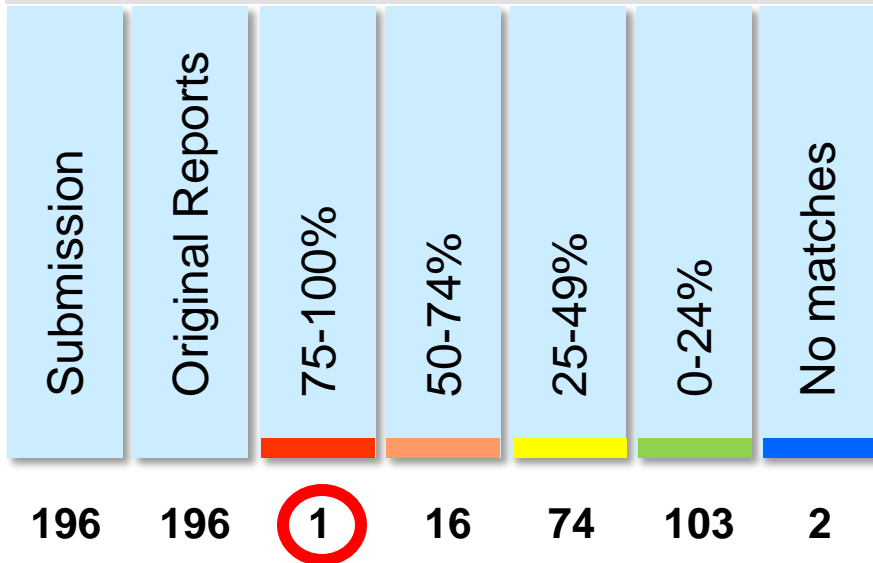
**SEE THE ORIGINAL WORK**  
Turnitin preserves the original format of the paper allowing instructors to view the student's original text, formatting, imagery and layout.



**UNDERSTAND WHAT IS ORIGINAL AND WHAT ISN'T**  
Turnitin shows how much of the student's paper matches content from our databases so instructors can quickly understand how much of the paper is unoriginal.

STATS DISPLAYED ARE FROM 21-JAN-2009 TO 31-MAY-2011.

statistics



TITLE	REPORT	
47	75%	■
2010-243	68%	■
2009-401	53%	■
2010-454	50%	■
-----		
2010-120	48%	■
2010-549	26%	■
-----		
2010-213	24%	■
2010-136	24%	■
2010-380	23%	■

2011년 6월      2010년 10월

		Crosscheck	Turnitin
1	2009-6	6%	6%
2	2009-80	16%	10%
3	2009-85	36%	23%
4	2009-135	97%	41%
5	2009-136	37%	24%
6	2009-198	17%	6%
7	2009-272	31%	22%
8	2009-411	36%	36%
9	2009-464	47%	46%
10	2009-478	35%	22%
11	2010-7	32%	33%
12	2010-15	17%	17%
13	2010-20	23%	26%
14	2010-39	6%	6%
15	2010-60	60%	52%

		Crosscheck	Turnitin
16	2010-61	7%	8%
17	2010-81	22%	23%
18	2010-84	36%	22%
19	2010-96	19%	16%
20	2010-115	22%	21%
21	2010-116	36%	33%
22	2010-120	50%	48%
23	2010-151	40%	39%
24	2010-152	19%	21%
25	2010-183	18%	19%
26	2010-186	39%	38%

with diabetes mellitus (fasting plasma glucose >126 mg/dl with a 2-h OGTT value of >200 mg/dl) were excluded. The 18 patients with PWS were recruited from the pediatric outpatient clinics at Samsung Medical Center between July 2007 and January 2008. All subjects were prepubertal; their clinical characteristics are listed in Table 1.

To recruit children as controls, several elementary and middle schools located in southern Seoul were used for recruitment. The purpose of the study was explained to the teachers, and a written study protocol was sent to all parents. The criteria for enrolment of the overweight controls included a BMI that was higher than the 85<sup>th</sup> percentile for age and gender. For the children with PWS, informed consent was obtained from parents or guardians, and for the controls, it was obtained from the study participants as well as the parents or guardians. Growth hormone therapy had been given to the children with PWS. Except for growth hormone, none of the study subjects were receiving any other medications. The study design was reviewed and approved by the Samsung Medical Center Institutional Review Board.

## Match Overview

1	<a href="http://jcem.endojournals.org">jcem.endojournals.org</a> Internet source	27%
2	<a href="http://www.bernhard-ludvik.at">www.bernhard-ludvik.at</a> Internet source	2%
3	Lutz, T.A.. "Amylinerg..." Publication	2%
4	V. Martina. "The alter..." Publication	2%
5	<a href="http://onlinelibrary.wiley.com">onlinelibrary.wiley.com</a> Internet source	2%
6	C. Martin. "The Physio..." Publication	2%
7	"Abstracts", Diabetes ... Publication	1%
8	Olga Giménez-Palop. "A..." Publication	1%
9	Kyung Mook Choi. "Infl..." Publication	1%
10	<a href="http://www.nature.com">www.nature.com</a> Internet source	1%

## 1 Statistical analysis

Homeostasis model assessment for insulin resistance (HOMA-IR) and the whole-body insulin sensitivity index (WBISI) were calculated as the insulin sensitivity indexes.

WBISI was calculated using OGTT, as proposed by Matsuda and DeFronzo, as  $10,000/\sqrt{(\text{fasting glucose} \times \text{fasting insulin}) \times (\text{mean glucose} \times \text{mean insulin during OGTT})}$ .

1 All values are expressed as the median and interquartile ranges in the tables and as the means  $\pm$  SE in the figures. The t-test with Bonferroni's correction was used when the samples were normally distributed; in other cases, the Mann-Whitney U test with Bonferroni's correction and the Wilcoxon test were used to compare the hormone levels of the children with PWS and the controls.

A two-way ANOVA with repeated measures was used to compare the two groups with regard to the changes in hormone levels over time. Correlations were determined using Spearman's correlation analysis; p values of  $<0.05$  were considered statistically

### Match Overview

1	jcem.endojournals.org Internet source	27%
2	www.bernhard-ludvik.at Internet source	2%
3	Lutz, T.A.. "Amylinerg... Publication	2%
4	V. Martina. "The alter... Publication	2%
5	onlinelibrary.wiley.com Internet source	2%
6	C. Martin. "The Physio... Publication	2%
7	"Abstracts", Diabetes ... Publication	1%
8	Olga Giménez-Palop. "A... Publication	1%
9	Kyung Mook Choi. "Infl... Publication	1%
10	www.nature.com Internet source	1%

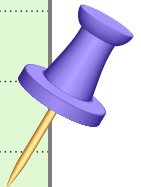
**2010-60**

지적하신 부분은 논문 page 7~8의 hormonal assay 부분과 statistical analysis 부분의 문장들입니다. 기존의 논문은 본 논문의 공저자가 **corresponding author**로 발표하였던 "ooooo" 이라는 논문으로 OGTT 후 insulin, glucose, obestatin, ghrelin을 시간에 따라 측정하였던 논문입니다. **연구 방법적인 측면이나 통계 사용**면에서 공통점이 많이 있을 수 있다고 봅니다. 그리고 동일한 lab에서 검사를 시행하였으므로 insulin, glucose 측정하는 기계가 동일하였고, 방법도 동일하였습니다. **영어의 표현을 유사한 뜻의 다른 표현으로 수정**하였습니다.

2011년 6월    2010년 12월

		Crosscheck	Turnitin
1	2009-291	35%	35%
2	2009-429	36%	38%
3	2009-549	22%	26%
4	2010-125	14%	14%
5	2010-169	22%	23%
6	2010-185	56%	56%
7	2010-191	29%	30%
8	2010-194	14%	16%
9	2010-221	52%	53%
10	2010-228	21%	21%
11	2010-231	11%	11%
12	2010-233	33%	34%
13	2010-282	57%	58%
14	2010-284	16%	18%
15	2010-293	20%	15%

		Crosscheck	Turnitin
16	2010-302	21%	21%
17	2010-309	35%	34%
18	2010-315	39%	41%
19	2010-337	16%	18%
20	2010-372	26%	27%
21	2010-385	9%	10%
22	2010-429	26%	27%
23	2010-454	57%	57%
24	2011-36	35%	36%

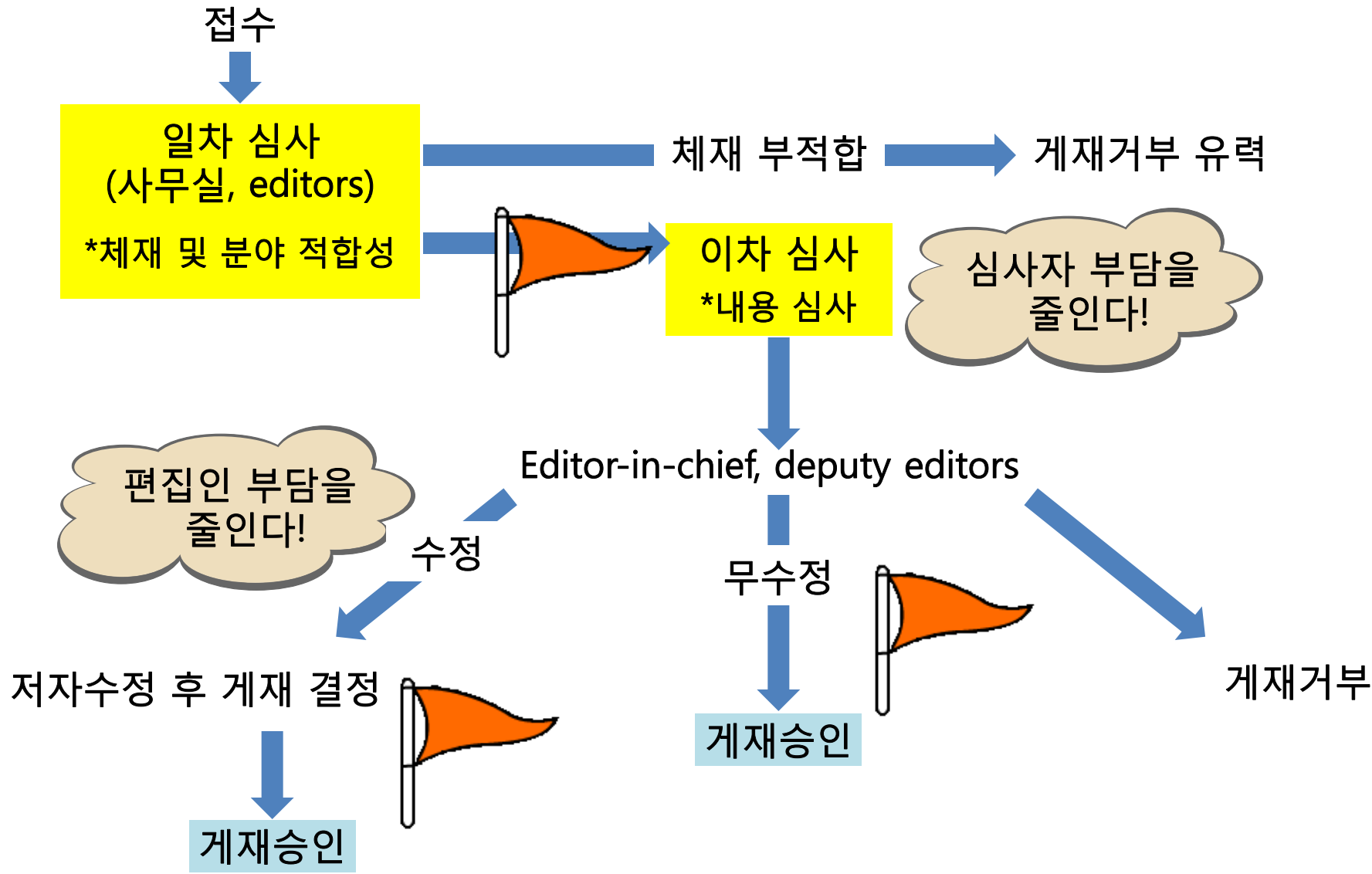




## 2010-454

1. 말씀하신 data는 그 증례에서만 보이는 특이한 수술소견이 아닌 일반적인 구조물들에 대한 보존의 가능성을 설명하기 위한 것으로 생각되어 동일 data를 사용하였으나 편집위원회의 지적대로 **다른 data으로 대체**하여 보내드립니다.
2. 지적하신 대로 **동일한 수술술기**이지만 중복되고 **유사한 문장들이 확인되어 수정**합니다.

# 논문 출판과정에서 표절 및 중복게재 찾기



**출판 전 유사성 검색은 반드시 필요**

**저자와 편집인**

**“모두”**

**표절과 중복게재로부터 자유롭도록**