

Preserving, Protecting & Improving Research Integrity in Africa; Challenges and Recommendations

Professor A. Dhai
Director Steve Biko Centre for Bioethics
University of the Witwatersrand
South Africa
Amaboo.dhai@wits.ac.za



Research Integrity

- Integrity :
 - **“moral uprightness; honesty”*

**The Concise Oxford Dictionary – 9ed*

Scientific Misconduct

- FFP:
 - widely accepted defn from USA Fed Policy on Research Misconduct
- Includes also:
 - Deviation from or failure to adhere to proposed protocol without proper permission
 - Misrepresentation
 - Falsification of credentials
 - Deception in research proposal
 - Deception in carrying out of research
 - Piracy of materials
 - Failure to obtain informed consent breaches of confidentiality
 - Undertaking research without REC clearance
 - Any one of all other deviations from accepted ethical standards

Schneider B, Schuklenk U, Module 6: Special Issues, *Developing World Bioethics*; 2005;5,92-108

Research Integrity: African Focus

- Human Research Subject Protections:
 - Vulnerable Populations
 - 10/90 Disequilibrium
 - N/S “Collaboration” – Power Differentials

ETHICAL GUIDELINES

FOR BIOTECHNOLOGY RESEARCH
IN SOUTH AFRICA
2006



Genetic Modification

Cloning

Bioremediation

Bioprocessing

Intellectual Property

Ethical Duties

In South Africa, biotechnology promises to make a significant contribution to the development of better health care, enhanced food security, improved supplies of potable water, more efficient industrial development processes for transforming raw materials and detoxification of hazardous wastes. The biotechnology sector in South Africa is still at the beginning of its growth phase, with few novel products having been developed even though over R100 million is spent on biotechnology research and development annually. The focus in the country at present is therefore to stimulate the growth of biotechnology so as to address the burden of disease in our region.

If South Africa is to continue being a world leader in scientific advancement, she has to ensure that there is responsibility and accountability to a society that makes possible these advances by participating in the research and thereby contributing to the social good. Hence, advances in ethics and the law will need to be in parallel with scientific advancements. There is therefore an urgent need for the ethical, legal and regulatory frameworks to keep pace with these advances.

In 2004, LIFElab, an initiative of the Department of Science and Technology under the auspices of the National Biotechnology Strategy 2002, initiated a project, the first of its kind in South Africa, with the aim of compiling Guidelines to assist biotechnology stakeholders in conducting biotechnology research initiatives in South Africa with the strictest adherence to research ethics and applicable national and international laws. The resulting Guidelines consist of the following two components:

Legal Guidelines for Biotechnology Research in South Africa 2006.

Ethical Guidelines for Biotechnology Research in South Africa 2006.



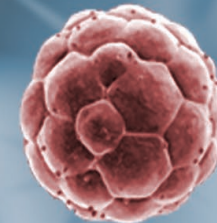
science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA



LEGAL GUIDELINES

FOR BIOTECHNOLOGY RESEARCH
IN SOUTH AFRICA
2006



Genetic Modification

Cloning

Bioremediation

Bioprocessing

Intellectual Property

Ethical Duties

In South Africa, biotechnology promises to make a significant contribution to the development of better health care, enhanced food security, improved supplies of potable water, more efficient industrial development processes for transforming raw materials and detoxification of hazardous wastes. The biotechnology sector in South Africa is still at the beginning of its growth phase, with few novel products having been developed even though over R100 million is spent on biotechnology research and development annually. The focus in the country at present is therefore to stimulate the growth of biotechnology so as to address the burden of disease in our region.

If South Africa is to continue being a world leader in scientific advancement, she has to ensure that there is responsibility and accountability to a society that makes possible these advances by participating in the research and thereby contributing to the social good. Hence, advances in ethics and the law will need to be in parallel with scientific advancements. There is therefore an urgent need for the ethical, legal and regulatory frameworks to keep pace with these advances.

In 2004, LIFElab, an initiative of the Department of Science and Technology under the auspices of the National Biotechnology Strategy 2002, initiated a project, the first of its kind in South Africa, with the aim of compiling Guidelines to assist biotechnology stakeholders in conducting biotechnology research initiatives in South Africa with the strictest adherence to research ethics and applicable national and international laws. The resulting Guidelines consist of the following two components:

Legal Guidelines for Biotechnology Research in South Africa 2006.

Ethical Guidelines for Biotechnology Research in South Africa 2006.



science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA



A compilation of extracts from the

ETHICAL GUIDELINES

For Biotechnology Research In South Africa
2006

&

LEGAL GUIDELINES

For Biotechnology Research In South Africa
2006

*Please consult the comprehensive guidelines
for practical purposes*



science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA



Department of Health - SA

- Health Professions Council of South Africa
- National Health Act – Chapter 9



DEPARTMENT OF HEALTH
Republic of South Africa

**ETHICS IN HEALTH RESEARCH:
PRINCIPLES, STRUCTURES
AND PROCESSES**

2004

*RESEARCH INTEGRITY –
POLICY, CODES, GUIDELINES
AND OVERSIGHT BEYOND
HUMAN SUBJECTS
PROTECTIONS*

Subscribe to the Sunday Times

[News](#) | [Sport](#) | [Careers](#) | [Business](#) | [Entertainment](#) | [Columnists](#) | [Multimedia](#) | [.Sunday Times](#) | [Property](#) | [About Us](#) | [Blogs](#) | [Podcasts](#)
[Home](#) | [Of Interest](#) | [Motoring](#) | [Special Reports](#) | [Document Vault](#) |

Site last Updated: Aug 23 2007 9:27AM

You are not currently logged in. [Click here to Login/Register](#)

Academic piracy: More walk plank

Prega Govender

Published: Jun 10, 2007

University left reeling after another resignation over unethical practices.

A new plagiarism scandal has rocked the University of KwaZulu-Natal — still reeling from a Sunday Times exposé of the bogus doctorate awarded to Chippy Shaik .

The university's Nelson R Mandela School of Medicine confirmed this week that a master's thesis had been plagiarised and that the student is at risk of failing unless she provides proof in the next two weeks that it was her own, unaided work .

Research scientist Professor Photini Kiepiela — who abruptly resigned last week after admitting plagiarising an article for a paper she had written — was responsible for supervising the student's work.

Professor Willem Sturm, dean of the medical school, said an external examiner had found that large parts of the student's dissertation "had come from a published paper".

"We are looking at whether the student copied it into the dissertation or whether the supervisor told her to put these things in," he said.

Sturm said the student had displayed very little understanding of the thesis during an oral examination on it. He confirmed that the university would scrutinise all dissertations supervised by Kiepiela over the past few years.

Shaik's mechanical engineering doctorate thesis;

ý The sacking of Professor Kanthan Pillay, the university's chief finance



Resigned: Research scientist Professor Photini Kiepiela

Charged: Professor Pumela Msweli-Mbanga

Email newsletter

Be an active part of the Sunday Times online community: subscribe to the Sunday Times weekly email newsletter!

[Click here to subscribe](#)

[Click!](#)

Latest Headlines

Most Popular

- Madisha: Blade got the R500000
- DA joins chorus of calls to dismiss minister
- Coast needs help with damage costs
- State firm to slash Internet costs to 5% of Telkom rate
- Budget speech party 'well over-budget'

Podcasts

Videos

Blogs

- 21 Aug 2007
Fred Khumalo interviews Sunday Times editor Mondli Makhanya
- 20 Aug 2007
Who has scored the more tries against the Springboks - Bradley Langenhoven or Jonah Lomu?
- 16 Aug 2007
Lesley Mofokeng speaks to Tamara Dey
- 16 Aug 2007
The Von Podcast - Episode 11

[Subscribe to feed](#)

*Institutes of Higher Cheating

- University of KwaZulu-Natal
- University of South Africa:
 - senior history lecturer plagiarized masters student thesis; philosophy lecturer charged with plagiarism & 3 doctoral theses rejected
- Stellenbosch University:
 - 2006: 17 cases, 3 postgraduate
- University of Cape Town:
 - 39 cases since 2006, 1 postgraduate
- University of the Free State:
 - 2006 : 7 cases, 1 postgraduate
- University of Pretoria:
 - 2006: 22 cases, 2 postgraduate

**Sunday Times: June 10th 2007*

Response to a case of plagiarism in the *International Journal of Tuberculosis and Lung Disease*

A CASE OF PLAGIARISM was recently brought to the attention of the *International Journal of Tuberculosis and Lung Disease* (IJTLD) by the Vice-Chancellor of the University of Zambia. The plagiarism involved a paper by Chintu and Mwaba entitled 'Tuberculosis in children with human immunodeficiency virus infection' published in the IJTLD,¹ which included large sections taken verbatim directly from, and without referring to, an article by Havlir and Barnes entitled 'Tuberculosis in patients with human immunodeficiency virus infection' published in the *New England Journal of Medicine* (NEJM).²

What made the case of plagiarism in the IJTLD different from many others is that this was a State-of-the-Art article written on invitation, and not an article reporting original results. However, using verbatim sections, even if not original results but only the words of another author, still constitutes plagiarism and is unacceptable.

A specific process was followed to manage this case of plagiarism. First, all the associate editors of the IJTLD were informed and asked for their comments. Second, letters were sent to Dr Drazen, editor of the NEJM, to the authors of the NEJM article, Havlir and Barnes, and to the authors of the IJTLD article, Chintu and Mwaba, with information regarding the case, informing them that a statement would be published in the IJTLD and asking for their response. Third, the Vice Chancellor of the University of Zambia was informed about the process that would be followed. Finally, as no official policy on plagiarism had yet been put in place for the IJTLD, the Editors-in-Chief, the Executive Director and other senior Union staff will draft an official policy on plagiarism which will include guidelines for attempting to prevent sim-

ilar situations in the future. This plagiarism policy will be sent to all associate editors, will be published in the IJTLD and will be included in the Instructions to authors.

Drs Chintu and Mwaba have admitted to a lack of rigour in preparing their State of the Art article. By publishing this editorial, the IJTLD officially retracts the paper by Chintu and Mwaba, and the online version of the IJTLD will be withdrawn from the Ingenta host site. The IJTLD will not publish any article by either of these authors for a period of 5 years.

We wish to thank the University of Zambia for bringing this case of plagiarism to our attention.

NULDA BEYERS*

DONALD A. ENARSON†

CLARE PIERARD†

MOIRA CHAN-YEUNG‡

* EIC, Tuberculosis

University of Stellenbosch

Cape Town, South Africa

† International Union Against Tuberculosis

and Lung Disease

Paris, France

‡ EIC, Lung Disease

University of Hong Kong

Hong Kong SAR, China

e-mail: journal@iuatld.org

References

- 1 Chintu C, Mwaba P. Tuberculosis in children with human immunodeficiency virus infection. *Int J Tuberc Lung Dis* 2005; 9: 477-484.
- 2 Havlir D V, Barnes P F. Tuberculosis in patients with human immunodeficiency virus infection. *N Engl J Med* 1999; 340: 367-373.

Research Fraud in SA – Bezwoda

- Severe blow to Institution's reputation
- Erosion of system of trust in research
- Undermining of existing “honor system” for conference presentations & publications
- A diseased research culture?
- Ghost authors

RESPONSE

- HPCSA
- DST
- DOH
- ARC
- INSTITUTIONS:
 - Programs on scientific integrity
 - Increased vigilance
 - More stringent disciplinary action
 - Plagiarism software

The Times

FOOD

Standard Bank
SOWETO
WINE FESTIVALMARKETING
EXCELLENCE

Print Ads

Career
Junction

Enter Job No

The Times

[Subscribe to the Sunday Times](#)
[Click!](#)
[News](#) [Sport](#) [Careers](#) [Business](#) [Entertainment](#) [Columnists](#) [Multimedia](#) [Sunday Times](#) [Property](#) [About Us](#) [Blogs](#) [Podcasts](#)
[Page 1](#) | [News](#) | [Metro](#) | [Insight](#) | [Business Times](#) | [Soccerlife and Sport](#) | [Lifestyle](#) | [Magazine](#) |

Site last Updated: Aug 22 2007 4:21PM

You are not currently logged in. [Click here to Login/Register](#)

Plagiarism and the shaky doctorate: What the university says

20 May 2007

The impact of the technological highway continues to be felt throughout society. In the sphere of higher education it has posed new challenges that universities globally are battling to regulate efficiently. Prior to the emergence of the Internet, an academic could know what was available to students in terms of library resources and scholarly writings. Today the challenge is far greater, and this makes the detection and eradication of plagiarism more difficult.

☹☹ No university is able to protect itself completely where there is collusion between internal and external examiners, in other words where the gatekeepers have conspired ☹☹

The concept of plagiarism is at times misunderstood. In many areas of social life repeating word for word the sayings of another is regarded as learning, and accepted and even encouraged. An example is the ideal of repeating a religious text word for word. This is an acceptable form of learning but it is not the objective when writing an essay or thesis at the tertiary level of education. There is no taboo against repeating verbatim the words of another in an essay or thesis but, since the objective of such writing is to go beyond the present level of knowledge and demonstrate personal understanding on the part of the student, it is essential that the words and concepts of another be acknowledged. Should no acknowledgement exist, then the message is sent that this is the student's or author's own creation, and if this is not the case, this is plagiarism. Put another way, plagiarism is the theft of the ideas or writings of another by way of passing them off as one's own.

Today universities accept that, no matter how renowned, no one person can know all of the information available, and the trend is to develop and use software to enable universities, for the first time in history, to implement an entirely independent check against plagiarism. The University of KwaZulu-Natal is evaluating a number of software packages and will shortly be introducing this additional tool in the examination process, so as to protect the integrity of our degrees. No university is able to protect itself completely where there is collusion between internal and external examiners, in other words where the gatekeepers have conspired. The sort of software we are introducing will, however, assist in this regard.

UKZN is committed to investigating substantiated allegations of plagiarised degrees. This is in line with our track record and a demonstrated commitment to knowledge production evident in the fact that UKZN is the second-most prolific producer of academic research in South Africa.

Email newsletter

Be an active part of the Sunday Times online community: subscribe to the Sunday Times weekly email newsletter!

[Click here to subscribe](#)
[Click!](#)

Latest Headlines

Most Popular

- Table Mountain fire case stalls
- Gandhi meets Mandela
- N1 opened after toxic spill
- Nutrition 'only has supportive role in Aids'
- Biker killed in Jo'burg accident (photos)

Podcasts

Videos

Blogs

- 21 Aug 2007
Fred Khumalo interviews Sunday Times editor Mondli Makhanya
- 20 Aug 2007
Who has scored the more tries against the Springboks - Bradley Langenhoven or Jonah Lomu?
- 16 Aug 2007
Lesley Mofokeng speaks to Tamara Dey
- 16 Aug 2007
The Von Vodcast - Episode 11

[Subscribe to feed](#)

PREVENTION - Specific Challenges & Recommendations

- Detection
- Resources
- Supervisors as ghost & guest authors
- Whistle-blower protections
- Future research direction

American Association of University Professors

“All true universities, whether public or private, are public trusts designed to advance knowledge by safeguarding the free inquiry of teachers and scholars. Their independence is essential because the university provides knowledge not only to its students, but also to the public agency in need of expert guidance and the general society in need of greater knowledge, ... these latter clients have a stake in disinterested professional opinion, stated without fear or favor, which the institution is morally required to respect.”