

# Tipping the scale : the first years of the Open Access mandate implementation at the University of Pretoria - a case study



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4<sup>th</sup> African Conference for Digital Scholarship and Curation



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# Overview

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- Introduction
- Possible mandate strategies
- Pre-adoption of the mandate
- Acceptance of UP mandate
- Current findings & status
- Implementation strategy
- Challenges & highlights
- Conclusion



# Introduction

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- ❑ UP embraced Open access movement
- ❑ UPeTD implemented in 2000
- ❑ Mandatory policy adopted in 2003
- ❑ UPSpace implemented in 2006
- ❑ Mandatory policy adopted in 2009

# Possible mandate strategies

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- ❑ Requiring or mandating researchers to deposit
- ❑ Relying on voluntary or spontaneous participation with or without encouragement
- ❑ Following a patchwork mandate. The patchwork mandate concentrates in obtaining departmental support and persuasion of senior leaders of your institution (Arthur Sale)

# Pre-adoption of the mandate

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- ❑ Open Scholarship Office formalized in 2007
- ❑ Big idea is that researchers should “self-archive”
- ❑ Can you promote benefits of an empty repository?
- ❑ Open Scholarship manager
- ❑ Mediated submission strategy implemented
- ❑ Library staff involvement

# “We build the road by walking it”

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# The adoption of the UP mandate

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- ❑ Drafted by Monica Hammes
- ❑ Library director and Ms Hammes had meetings with each Faculty's dean
- ❑ Adoption did not have an immediate effect
- ❑ Advocacy campaign in conjunction with Department of Research and Innovation 2010
- ❑ Faculty's Research coordinators

# UP mandate 1

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## Policy statement

- Staff & students are required to
  - ▣ submit the peer-reviewed post-prints of their articles and published conference papers to UPSpace, the University's institutional repository
  - ▣ Give the university permission to
    - Make the content freely available
    - Take necessary steps to preserve the files in perpetuity





# UP mandate 2

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## Scope

- The policy applies to all postgraduate students and staff members of the University of Pretoria
- Exceptions:
  - ▣ Research that does not qualify for the Research Report
  - ▣ Articles written before the researcher joined the University of Pretoria
  - ▣ Articles written after the researcher left the University of Pretoria



# UP mandate 3

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## Responsibilities

- Authors
  - ▣ Provide postprints
- Department of Library Services
  - ▣ Manage the implementation
  - ▣ Will assess all submissions
  - ▣ Adhere to publishers' regulations
  - ▣ Manage the embargo facility
  - ▣ Supply information, guidance & support



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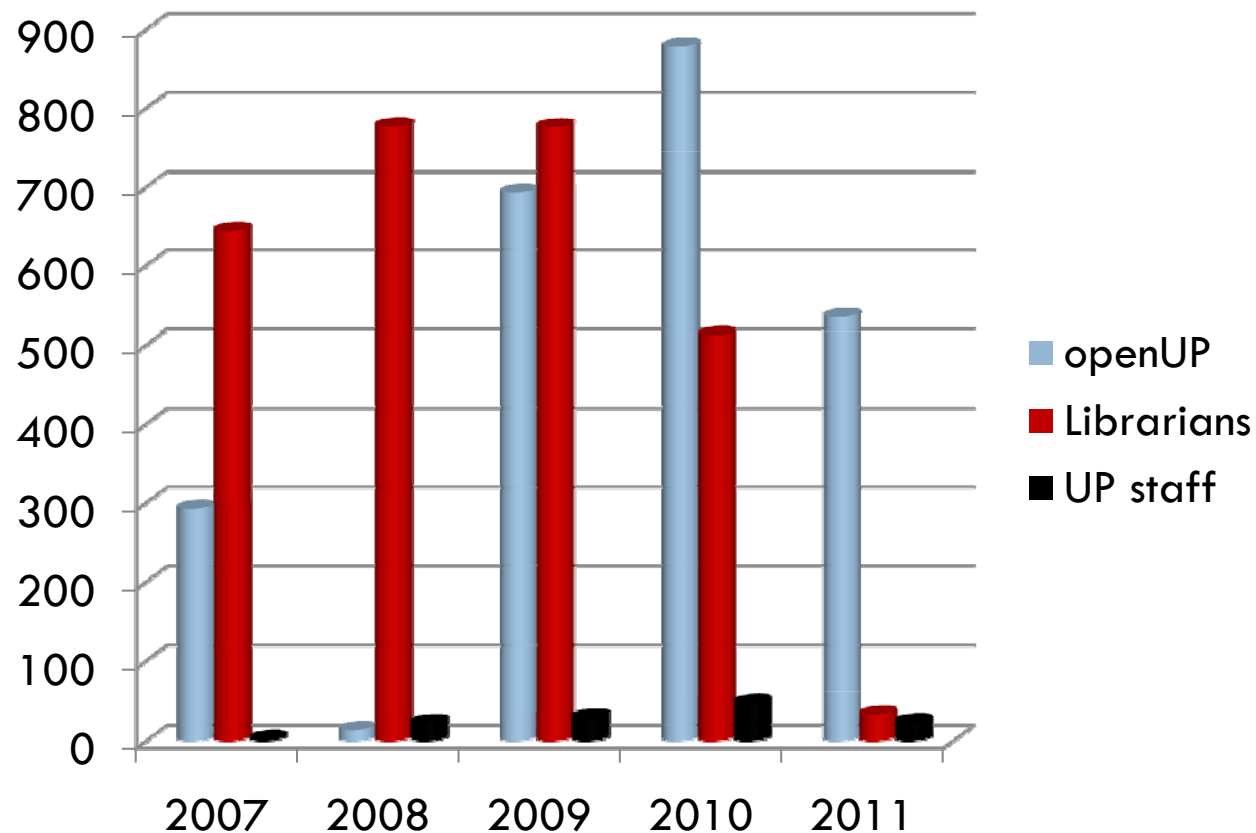
# Current findings

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- ❑ Few UP researchers self-archive willingly
- ❑ Global trend (Jantz & Wilson; Gargouri et al, Sale, Swan & Carr)
- ❑ Departmental submitters
- ❑ Personal submitters
- ❑ More campus advocacy is needed

# Statistics on archiving

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# Current status

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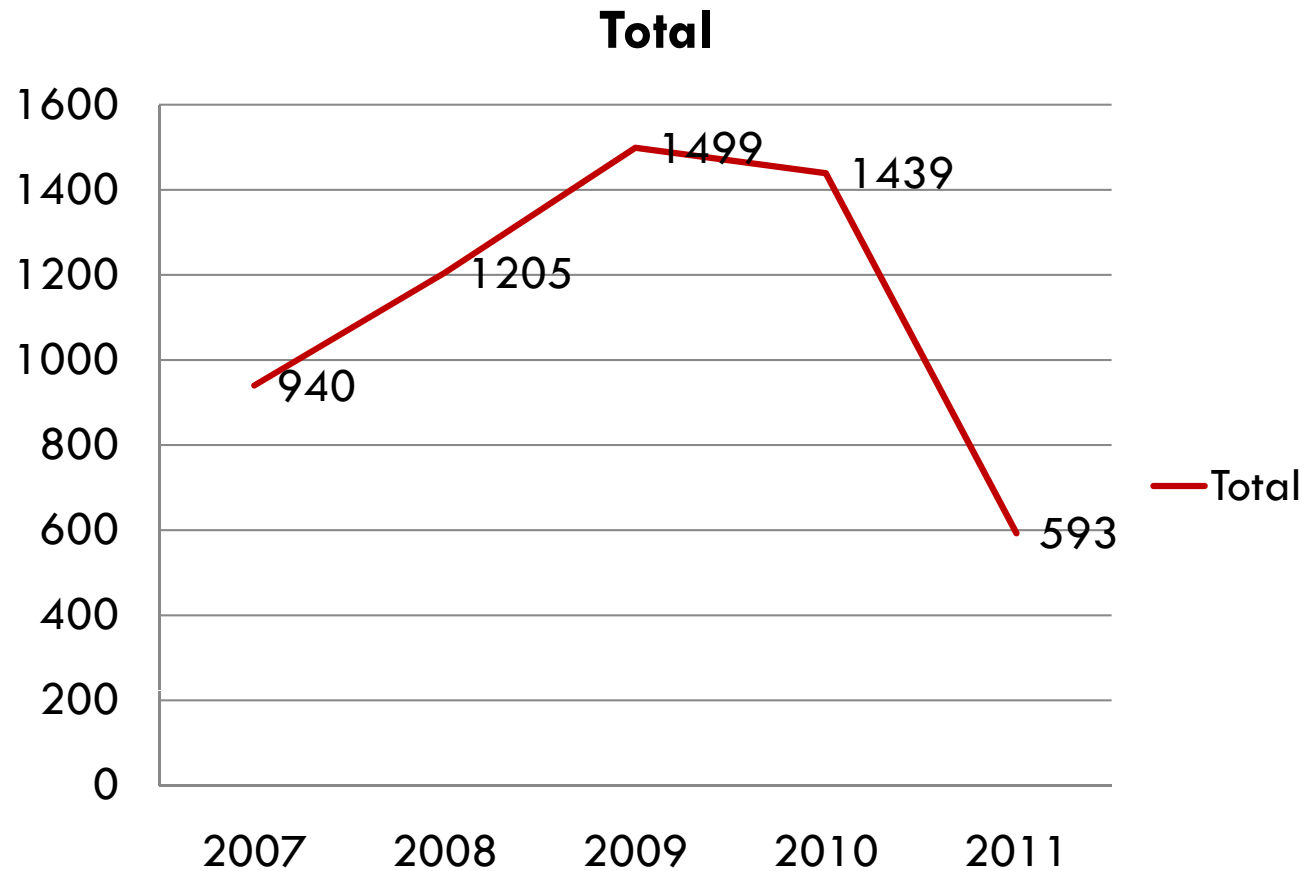
- 5886 articles in openUP
- 61% of articles linked to the Research report in 2009
- Since 2010 more postprints have been added



# openUP growth : 5880

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Annual  
submissions



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# Implementation strategy 1

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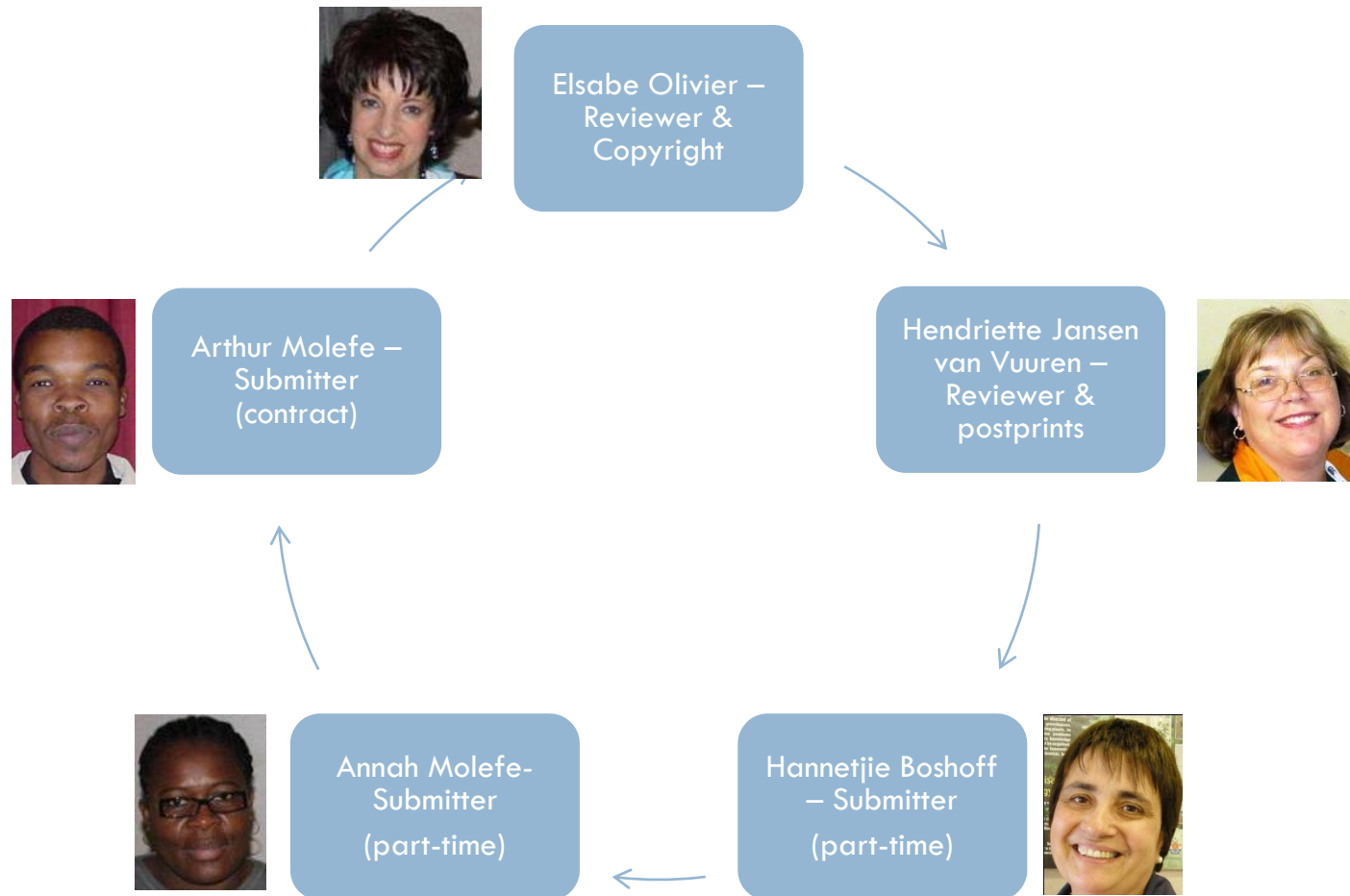
## Mediated submissions

- ❑ From outset this decision was made
- ❑ Global trend
- ❑ “The ‘big idea’ behind institutional repositories is that academic staff should ‘self-archive’. At Cranfield it was felt that this was not a viable expectation” – Simon Bevan
- ❑ 2 submitters (1 full-time, 1 part-time & volunteers)



# openUP team

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# Implementation strategy 2

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## Database alerts

- Concentrate on new research outputs
- Spreadsheet
- Alerts
  - ▣ Sabinet
  - ▣ Scopus
  - ▣ ISI Web of Knowledge
  - ▣ Science Direct
  - ▣ BioMed Central
  - ▣ EBSCOhost
  - ▣ Information specialists
  - ▣ Publishers



# Sabinet Alert

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From: <info@sabinet.co.za>

2011/05/13 07:19:28 A

To: Elsabe Olivier

Subject: UP Journal Alerts

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## 1. Record from search on: ((su: (university of pretoria)) or su: (universiteit van pretoria)) and pd: ("2011512")

**Title:** Understanding and incorporating human papillomavirus testing in cervical cancer screening : a South African perspective : review

**Authors:** Richter, K.L.

**From:** Southern African Journal of Gynaecological Oncology, Vol 3, Issue 1

**Published:** 2011

**Pages:** 9-14

**Subjects:** University of Pretoria, Human papillomavirus, HPV, Cervical cancer screening, HPV DNA, HPV E6/E7 mRNA

**ISSN:** 20742835

**Full text:** [Pdf image](#)

**Abstract:** The identification of human papillomavirus (HPV) as the aetiological agent for cervical cancer has important implications for the future of cervical cancer screening and prevention strategies. Despite the availability of HPV vaccines, regular and adequate screening will remain the mainstay of cervical cancer screening for some time to come. Molecular tests for high-risk HPV DNA and E6/E7 mRNA have the potential to improve cervical cancer screening in developed and developing countries. The latest international and South African private sector guidelines propose the incorporation of molecular testing for HPV in screening and patient management, backed by good scientific evidence. It is a time of transition for screening programmes; a move from the annual Pap test to a new viral paradigm. This review discusses the proper placement, advantages and disadvantages of cytology versus HPV-based screening tests from a South African perspective.

## 2. Record from search on: ((su: (university of pretoria)) or su: (universiteit van pretoria)) and pd: ("2011512")

**Title:** The art of prescribing trastuzumab for HER2-positive breast cancer : review

**Authors:** Outhoff K.

**From:** Southern African Journal of Gynaecological Oncology, Vol 3, Issue 1

**Published:** 2011

**Pages:** 16-26

**Subjects:** University of Pretoria, HER2-positive breast cancer, Trastuzumab, Patient eligibility, Tolerability, Dosing regimens, Resistance

**ISSN:** 20742835

**Full text:** [Pdf image](#)



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# Implementation strategy 3

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## Publisher negotiations

- ❑ SA publishers lack archiving policies
- ❑ Approach publishers directly
- ❑ Targeted UP editors & publishers first
- ❑ Database of publisher policies
  - ▣ Updated daily
  - ▣ Circulated to submitters
- ❑ SHERPA/RoMEO is very useful

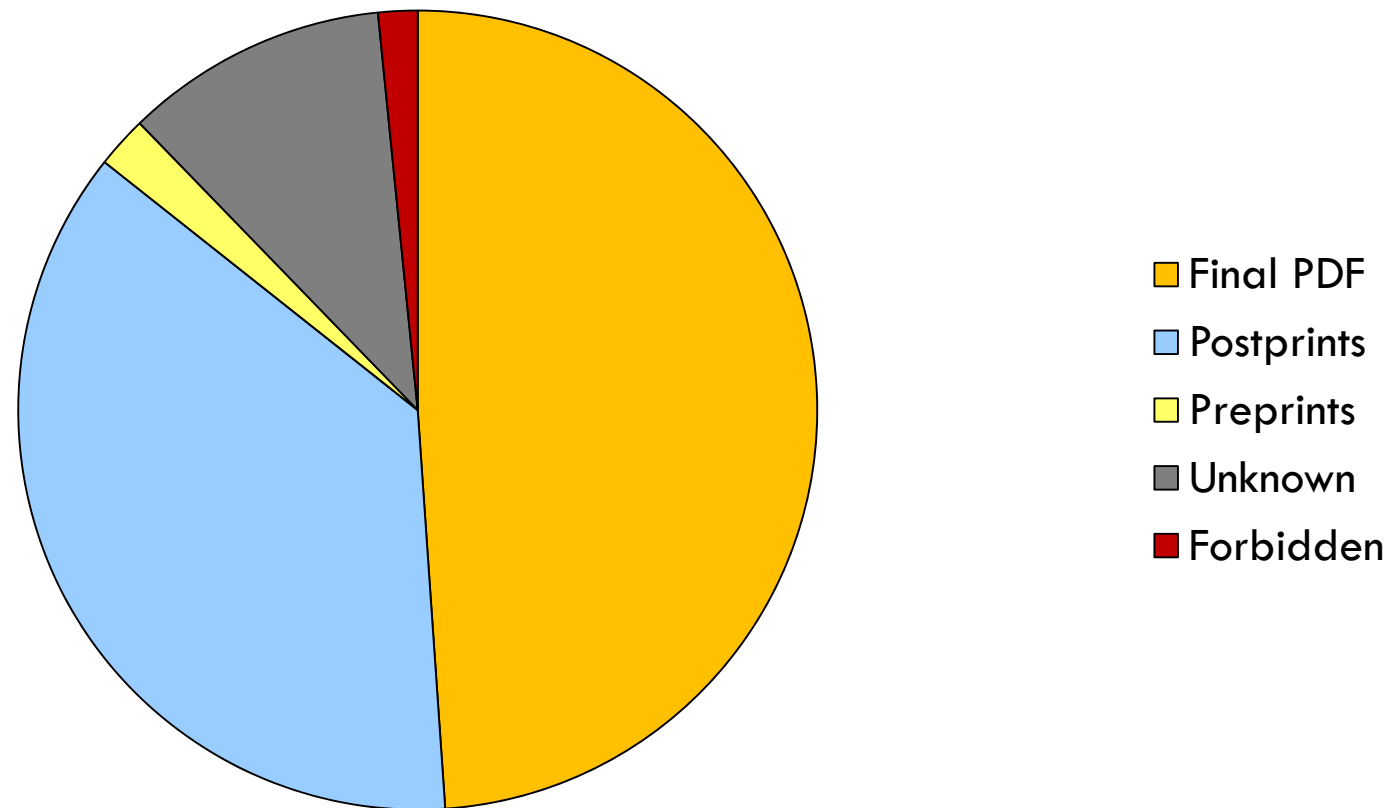
<http://www.sherpa.ac.uk/romeo/>



# 2010 Research output

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## Publisher policies



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# Implementation strategy 4

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## Campus partner

- ❑ Department of Research & Innovation
- ❑ Annual Research Information
- ❑ Data exchange process
- ❑ Library finds of research article outputs
- ❑ Open Scholarship Office is an equal partner
- ❑ 2010 formally approached
- ❑ RIS guidelines rewritten
- ❑ Contact sessions with UP research coordinators





African Journal of Biotechnology Vol. 8 (3), pp. 458-463, 4 February, 2009  
Available online at <http://www.academicjournals.org/AJB>  
ISSN 1684-5315 © 2009 Academic Journals

#### Full Length Research Paper

### Polyphasic taxonomic characterization of lactic acid bacteria isolated from spontaneous sorghum fermentations used to produce *ting*, a traditional South African food

Evelyn Madoroba<sup>1</sup>, Emma T. Steenkamp<sup>2</sup>, Jacques Theron<sup>1</sup>, Geert Huys<sup>3</sup>, Ilse Scheirlinck<sup>3</sup> and T. Eugene Cloete<sup>1\*</sup>

<sup>1</sup>Department of Microbiology and Plant Pathology, University of Pretoria, Pretoria 0002, South Africa.

<sup>2</sup>Forestry and Agricultural Biotechnology Institute (FABI), Department of Microbiology and Plant Pathology, University of Pretoria, Pretoria 0002, South Africa.

<sup>3</sup>Laboratory of Microbiology, Faculty of Sciences, Ghent University, K.L. Ledeganckstraat 35, B-9000 Gent, Belgium.

Accepted 19 November, 2008

*Ting*, an indigenous cooked fermented food made from sorghum flour, is consumed extensively in South Africa. Due to the spontaneous nature of the sorghum fermentation considerable variations in the sensory and microbial quality of the end-product may occur, thus hampering large-scale production of this food. The use of starter cultures purified from the fermented sorghum may be an alternative approach to obtain *ting* of consistent quality. The aim of this study was therefore to identify the lactic acid bacteria (LAB) associated with *ting* fermentation using a polyphasic approach. Phenotypic characterization and sequence analysis of the genes encoding the 16S subunit of the ribosomal RNA (*rrs*) and phenylalanyl tRNA synthase (*pheS*) were used. The results of these analyses showed that *ting* fermentation involved at least three different species of LAB, i.e. *Lactobacillus fermentum*, *L. plantarum* and *L. rhamnosus*. To our knowledge, this is the first report of polyphasic taxonomic characterization of LAB from this food. This research forms an essential first step towards the development of relevant starter cultures to produce *ting* of consistent quality.

**Key words:** lactic acid bacteria, polyphasic taxonomy, sorghum fermentation, *ting*, *pheS*.

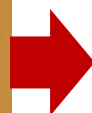
#### INTRODUCTION

*Ting* is a fermented sour porridge made in rural South Africa (Boling and Eisener, 1982). Adults typically consume a thick form of the porridge at major ceremonies such as weddings and funerals, while a diluted form may be used as weaning food because it is relatively inexpensive to prepare and does not require refrigeration or re-heating prior to consumption (Kunene et al., 1999). *Ting* is prepared by soaking sorghum, millet or maize meal for two to three days in excess water at ambient temperature, followed by cooking to make the porridge (Boling and Eisener, 1982). During the soaking step,

lactic acid bacteria (LAB) associated with the ingredients and utensils are responsible for fermentation and the resulting flavour of *ting* (Tamang, 1998; Mhir et al., 2007). As these fermentations are uncontrolled, the quality and sensory properties of different *ting* preparations may vary. However, the use of starter cultures would circumvent this problem and also facilitate the large-scale production and marketing of this food.

The development of starter cultures for a specific fermentation process usually involves isolation, selection and purification of microorganisms obtained from the fermented material (Mugula et al., 2003a). The selected microorganisms are then propagated as a mixture of pure cultures or as single-strain starters (Mugula et al., 2003a). Starter cultures that were developed from wild-type strains are generally better adapted to the specific

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#### Research 2009

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#### Faculty of Natural and Agricultural Sciences School of Biological Sciences Department of Microbiology and Plant Pathology Research articles in refereed specialist journals

#### Journal Title

#### Instructions

Select the first letter of the journal title from the alphabetical list.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A

Madoroba E, Steenkamp ET, Theron J, Huys G, Scheirlinck I, Cloete TE: 2009. Polyphasic taxonomic characterization of lactic acid bacteria isolated from spontaneous sorghum fermentations used to producing, a traditional South African food. *African Journal of Biotechnology*, 8 (3) / Feb, pp 458-463. [Full Text](#)

Theron J, Steenkamp ET, Gordon TB, Viljoen A, Viljoen A: 2009. Evolutionary Relationships among the *Fusarium oxysporum* f. sp. *cubense* Vegetative Compatibility Groups. *Applied and Environmental Microbiology*, 75 (14), pp 4770-4781.

Viljoen A, Pretorius J H, Theron J, Brozel V S: 2005. DNA as an *Adhesion-Bacillus cereus* Requires Extracellular DNA To Form

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Peters P, Macdonald A, Dubois T, Coyne D, Viljoen A, Viljoen A: 2009. Efficacy of chemical and fluorescent protein markers in studies about resistance to *Ascochyta blight* in *Carotum* *carotum* isolates



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**Title:** Polyphasic taxonomic characterization of lactic acid bacteria isolated from spontaneous sorghum fermentations used to produce *ting*, a traditional South African food

**Inquiries:** [eugene.cloete@up.ac.za](mailto:eugene.cloete@up.ac.za)  
**Author/s:** Madoroba, Evelyn  
Steenkamp, Emma Theodora  
Theron, Jacques  
Huys, Geert  
Scheirlinck, Ilse  
Cloete, T.E. (Thomas Eugene), 1958-

**LC Subjects:** Lactic acid bacteria  
Sorghum products -- South Africa  
Fermented foods -- Quality control

**Keywords:** Polyphasic taxonomy  
Sorghum fermentation  
*Ting*  
*pheS*

**Issue Date:** 2009

**Publisher:** Academic Journals

**Citation:** Madoroba, E, Steenkamp, ET, Theron, J, Huys, G, Scheirlinck, I & Cloete, TE 2009, 'Polyphasic taxonomic characterization of lactic acid bacteria isolated from spontaneous sorghum fermentations used to produce *ting*, a traditional South African food', *African Journal of Biotechnology*, vol. 8, no. 3, pp. 458-463. [<http://www.academicjournals.org/AJB/index.htm>]

**Abstract:** *Ting*, an indigenous cooked fermented food made from sorghum flour, is consumed extensively in South Africa. Due to the spontaneous nature of the sorghum fermentation considerable variations in the sensory and microbial quality of the end-product may occur, thus hampering large-scale production of this food. The use of starter cultures purified from the fermented sorghum may be an alternative approach to obtain *ting* of consistent quality. The aim of this study was therefore to identify the lactic acid bacteria (LAB) associated with *ting* fermentation using a polyphasic approach. Phenotypic characterization and sequence analysis of the genes encoding the 16S subunit of the ribosomal RNA (*rrs*) and phenylalanyl tRNA synthase (*pheS*) were used. The results of these analyses showed that *ting* fermentation involved at least three different species of LAB, i.e. *Lactobacillus fermentum*, *L. plantarum* and *L. rhamnosus*. To our knowledge, this is the first report of polyphasic taxonomic characterization of LAB from this food. This research forms an essential first step towards the development of relevant starter cultures to produce *ting* of consistent quality.

**URI:** <http://hdl.handle.net/2263/12234>

**ISSN:** 1684-5315

**Rights:** Academic Journals

# Implementation strategy 5

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## Library outreach

- Partner with information specialists
- Articles emphasize their role (Jantz & Wilson)
- Presentations
  - ▣ Executive
  - ▣ Information specialists meetings
- Voluntary openUP committee
- Annual Open access celebrations





# Open access day celebrations

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# Implementation strategy 6

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## Faculty outreach

- ❑ Deans approved mandate
- ❑ Circulated mandate to departments
- ❑ Presentations by invitation via information specialists
- ❑ Communication via postbox & Campus news
- ❑ Personal outreach for published article
  - ▣ Communicate publisher's policies and
  - ▣ Request pre- or postprint



# Challenges

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- ❑ Researchers
  - ❑ Do not have time to self-archive
  - ❑ Self-archiving doesn't fit in with their research workflow
  - ❑ Still need to be convinced of the benefits
  - ❑ Perceive repositories in conflict with their publishers
  - ❑ Confusion regarding post-print versions
  - ❑ Post-prints are not seen as an authoritative version
- ❑ Copyright policies of publishers
- ❑ But, our shop window is not empty!



# Tipping the scale - highlight 1

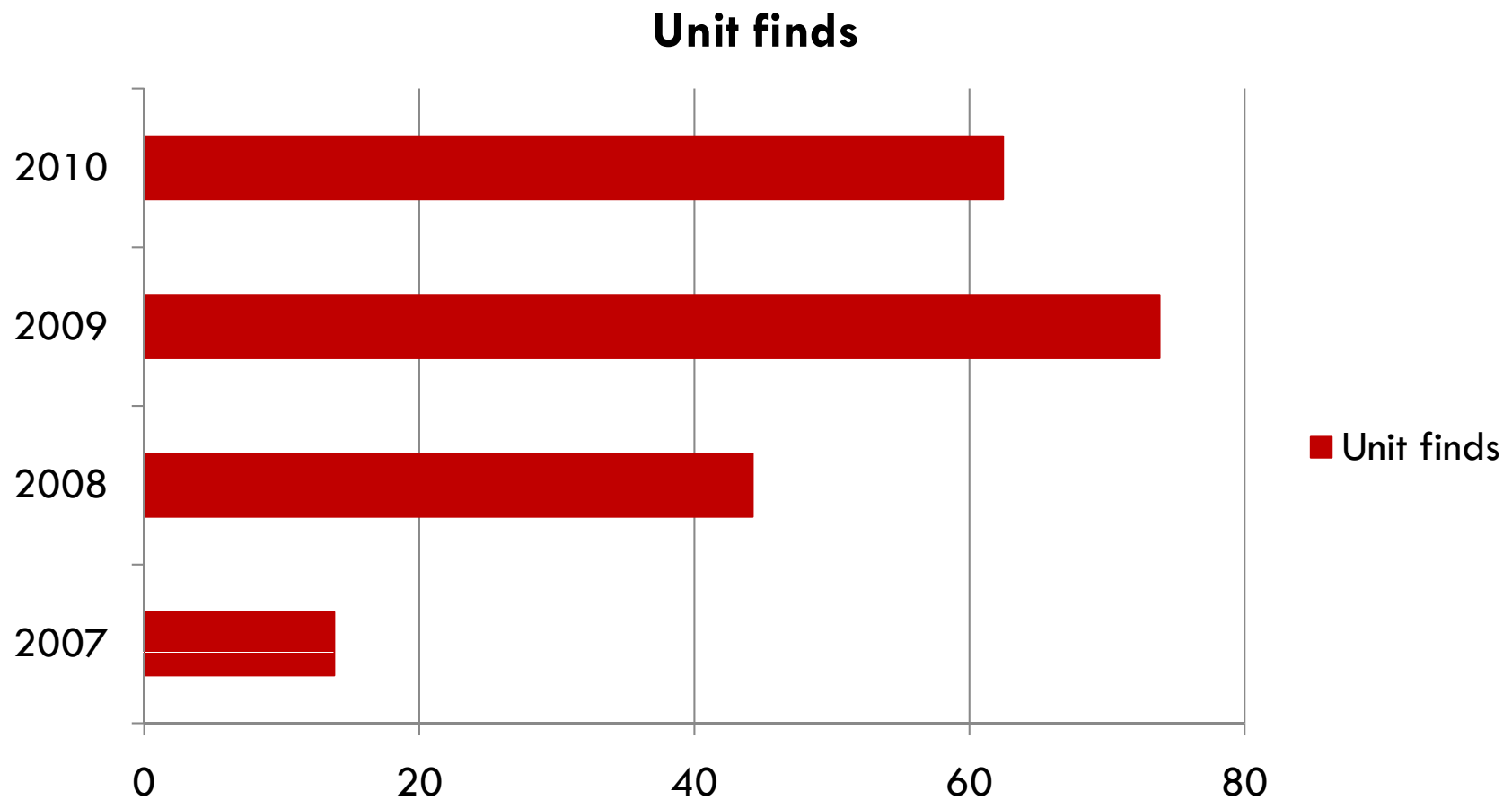
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- Commendation from peer review panel – February 2010:

“The Library has provided innovative and substantial support to the University’s research Office in identifying unreported UP publications which increase the University’s government subsidy.”

# Annual Unit finds

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# Tipping the scale - highlight 2

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- Support from Prof Brenda Wingfield, deputy dean of the Faculty of Natural & Agricultural Sciences:
- “In order to facilitate as many of our publications being available on UPSpace as possible I have been having additional discussions with Elsabe Olivier who has been driving this initiative on campus. One of my objectives has been to make this process as painless and time effective as possible AND to increase our international visibility.”

# Tipping the scale – highlight 3

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- Top 20 – 9 research articles
  - ▣ 1. Jansen, J D 1998, 'Curriculum reform in South Africa: a critical analysis of outcomes-based education'(Research Articles Jonathan Jansen Collection)
  - ▣ 4. Roux, NL 2002, 'Public policy-making and policy analysis in South Africa amidst transformation, change and globalisation : views on participants and role players in the policy analytic procedure', (Research Articles, Public Administration)
  - ▣ 5. Bar-On, R 2010, 'Emotional intelligence : an integral part of positive psychology', (Research Articles, Humanities Education)
- January - April 2011 – 69 000 visits



# Conclusion

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- ❑ Implementation is hard work!
- ❑ Spontaneous self-archiving has not materialized
- ❑ Few researchers are complying willingly
- ❑ The adoption is relatively easy, to get researchers to comply takes longer
- ❑ But librarians can play a pivotal role
  - ▣ Increasing visibility, usage & citation impact
  - ▣ Preserving research outputs
  - ▣ Assisting researchers and making the process as easy as possible



# Tipping the scale....

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“For any organisation, policy implementation is a process of failure, learning and adjustment. Implementation takes time, and one may expect to encounter barriers and challenges, forcing review of implementation, if not of the policy as such.” –

Chris Armbruster



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<http://ssrn.com/abstract=1685855>
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# Thank you – any questions?

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