

*Please note that only typewritten applications will be accepted. Should additional space be required for section "I" and/or "j", please use the back of this form.*

### ANIMAL ETHICS SCREENING COMMITTEE

#### MODIFICATIONS AND EXTENSIONS TO EXPERIMENTS

a. Name: Gavin Norton

b. Department: Physiology

A E S C N O:

c. Experiment to be modified/extended

99	1	2b
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d. Project title: Isoprenaline-induced cardiac remodelling.

e. Number and species of animals originally approved:

90	Sprague-Dawley rats
80	SHR
80	WKY

f. Number of additional animals allocated on M&Es:

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g. Total number of animals allocated to the experiment to date:

90	Sprague-Dawley rats
80	SHR
80	WKY

h. Number of animals used to date:

0	Sprague-Dawley rats
30	SHR
24	WKY

i. Specific modification / extension requested:

10 x young ( $\pm$  4 months) Long-Evans rats.

10 x old ( $>9$  months) Long-Evans rats.

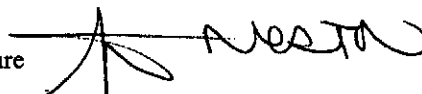
j. Motivation for modification / extension:

We have shown an increase in total myocardial collagen concentrations in old Sprague-Dawley controls. We attribute this increase to age as well as species differences. In order to convince reviewers we need data to support this concept. Hence we need to measure total collagen concentrations in rats of different species as well as young versus old rats. We already have data on young and old Sprague-Dawleys and WKYs for comparison. However in addition we need to compare a third species of rat of two different age groups, for example, young and old Long-Evans rats.

Date:

16/08/99

Signature



#### RECOMMENDATIONS

Date:.....

Signature:.....

Chairman, AESC

**UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG**

**ANIMAL ETHICS SCREENING COMMITTEE**

**CLEARANCE CERTIFICATE NO:**

2002	37	5
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**APPLICANT:** Professor G Norton

**DEPARTMENT:** School of Physiology

**PROJECT TITLE:** Effect of Pentoxifylline On Cardiac Remodeling In Adrenergic-Mediated Cardiac Dilatation In Rats

Species	Number	Expiry Date
Sprague dawley	48	2004
SHRs (rats)	48	2004
WKYs (rats)	48	2004

- i) Approval is hereby given for the experiment descr.bed in the above application.

The use of these animals is subject to AESC Guidelines for the use and care of animals, is limited to the procedures specified in the application form, and to:

**APPROVED**

SIGNED   
(Chairman: ~~Animal Ethics~~ Screening Committee)

DATE: 2 May 2002

- ii) I am satisfied that the persons listed in this application are competent to perform the procedures therein, in terms of Section 23(1)(c) of the Veterinary and Para-veterinary Professions Act (19 of 1982)

SIGNED   
(Registered Veterinarian)

DATE: 2 May 2002

**NOTE:**

First-time users of the CAS should contact the Director of the CAS in order to familiarise themselves with the facilities available, and the procedures required by the CAS for the carrying out of experiments.

AESC 3

**STRICTLY CONFIDENTIAL**

**UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG**

**ANIMAL ETHICS SCREENING COMMITTEE**

**CLEARANCE CERTIFICATE NO:**

2002	39	5
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**APPLICANT:** Professor G Norton

**DEPARTMENT:** School of Physiology

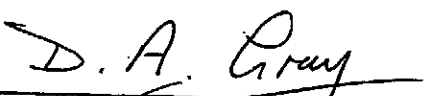
**PROJECT TITLE:** Effect of Antioxidant and an Aldosterone Receptor Antagonist On Cardiac Remodeling In Adrenergic- Mediated Cardiac Dilatation In Rats

Species	Number	Expiry Date
SHR (rats)	72	2004
WKY (rats)	48	2004

- i) Approval is hereby given for the experiment described in the above application.

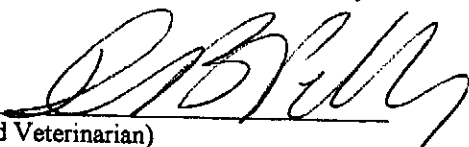
The use of these animals is subject to AESC Guidelines for the use and care of animals, is limited to the procedures specified in the application form, and to:

**APPROVED**

SIGNED   
(Chairman: Animal Ethics Screening Committee)

DATE: 2 May 2002

- ii) I am satisfied that the persons listed in this application are competent to perform the procedures therein, in terms of Section 23(1)(c) of the Veterinary and Para-veterinary Professions Act (19 of 1982)

SIGNED   
(Registered Veterinarian)

DATE: 2 May 2002

**NOTE:**

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AESC'4/2001  
ANIMAL ETHICS SCREENING COMMITTEE

MODIFICATIONS AND EXTENSIONS TO EXPERIMENTS

- a. Name: **Professor Gavin Norton, (Demetri Veliotos to perform specific modifications to experiment detailed below).**
- b. Department: **School of Physiology**
- c. Experiment to be **modified** / extended AESC NO:
- |      |    |   |
|------|----|---|
| 2002 | 39 | 5 |
|------|----|---|
- d. Project Title: **Effect of antioxidant and an aldosterone receptor antagonist on cardiac remodelling in adrenergic mediated cardiac dilatation in rats.**
- e. Number and species of animals **originally approved**:
- |    |     |
|----|-----|
| 72 | SHR |
| 48 | WKY |
- f. Number of additional animals **previously allocated** on M&Es:
- |  |      |
|--|------|
|  | None |
|--|------|
- g. Total number of animals **allocated** to the experiment to date:
- |    |     |
|----|-----|
| 61 | SHR |
|----|-----|
- h. Number of animals **used** to date:
- |    |     |
|----|-----|
| 61 | SHR |
|----|-----|
- i. Specific modification / extension requested:  
We would like to measure 72 hour urinary aldosterone secretion in some of the rats of the abovementioned study. There will be three groups of ten rats each in which we will perform these measurements. Two of the groups will be SHRs and the third will be WKY rats. The two SHR groups will comprise rats presently receiving a beta-adrenergic agonist (ISO) or placebo. The WKY rats are receiving a placebo. The rats will be placed in metabolic cages for 3 days. During these three days a 72 hour urine sample will be collected. This will then be analysed for urine aldosterone excretion using a radioimmunoassay technique (obtained from Diagnostic Products Limited).
- j. Motivation for modification / extension:  
In order to better define the mechanism by which an aldosterone receptor antagonist (spironolactone, SPIRO) mediates its beneficial effects on adrenergic induced adverse cardiac remodelling we need to define whether ISO induces increases in aldosterone synthesis in vivo. The least invasive method for determining aldosterone synthesis is by measuring urinary aldosterone excretion. Thus by determining whether or not ISO is associated with increased aldosterone synthesis, we could postulate a potential mechanism through which SPIRO may mediate its' beneficial effects on adverse cardiac remodelling.

Date: 24/06/2003 Signature: [Signature]

RECOMMENDATIONS:

Approved: collection of urine from 30 rats

Date: 25/6/03 Signature: D. A. Gray  
Chairman, AESC

**AESC1/2004: APPLICATION for APPROVAL to undertake a RESEARCH/TEACHING PROJECT using ANIMALS.**

This form is also available on disk (Word Perfect or MSWord 97)

**APPLICATION NO.**

2004	48	4
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**Project Title:**

Pilot study to develop and assess the validity of a rodent model of myocardial infarction in South Africa.

**DECLARATION BY INVESTIGATOR**

NB: Undergraduate and honours students may not sign this declaration.

1. I am suitably qualified to perform or supervise the procedure proposed.
2. The experiment is likely to advance biological knowledge, or is necessary for teaching students.
3. The work does not to my knowledge unnecessarily repeat other experiments.
4. The experiment has been designed so as not to be wasteful of animals.
5. The experiment has been designed to minimise discomfort, stress or distress in the animals.
6. Having carefully considered all possible alternatives, I am satisfied that it is impossible to attain the objectives in any other way.
7. I have read the "**Guidelines for the Use and Care of Animals**" published by the Animal Ethics Screening Committee.
8. I shall comply with any restrictions or modifications required by the AESC.
9. I agree that at any time during the experiment to provide the Chairman of the AESC with a progress report about the work, if requested to do so.
10. Please list the clearance numbers of all existing applications that are related to, or have a bearing on, this new application.

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<b>Signature:</b>	
<b>Name: (in capitals)</b>	Gavin R. Norton
<b>University Department</b>	Physiology
<b>Date:</b>	07/04/2004

AESC 4/2004

This form is also available on disk (Word Perfect 6 or MSWord 97)

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ANIMAL ETHICS SCREENING COMMITTEE

MODIFICATIONS AND EXTENSIONS TO EXPERIMENTS

a. Name: Gavin R. Norton

b. Department: School of Physiology

c. Experiment to be modified / extended

AESC NO:

2004	48	4
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d. Project Title: A pilot study to assess the validity of a rodent model of myocardial infarction in South Africa.

e. Number and species of animals originally approved:

45	
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f. Number of additional animals previously allocated on M&Es:

0	
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g. Total number of animals allocated to the experiment to date:

45	
----	--

h. Number of animals used to date:

45	
----	--

i. Specific modification / extension requested:

Rats to be Food deprived

j. Motivation for modification / extension:

- A) Refer to page attached
- B) To include Adriano Dello Iacono (BSc, BSc Honours completing in 2004 in physiology) and Nelson Alves (BSc, BSc Honours completing in 2004 in physiology) as co-investigators in the study. Their role will be to monitor body weight, running distance and food administration, all of which they have previously done during the course of their BSc Honours degree.

Date: 21/09/2004

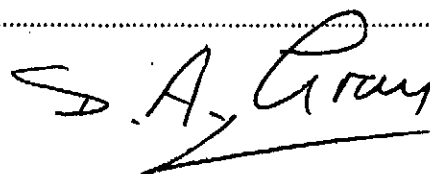
Signature: 

RECOMMENDATIONS:

Approved.

Date: 22/09/04

Signature: 



Chairman, AESC

Please note that only typewritten applications will be accepted. Should additional space be required for section "I" and/or "j", please use the back of this form.

**ANIMAL ETHICS SCREENING COMMITTEE**

**MODIFICATIONS AND EXTENSIONS TO EXPERIMENTS**

a. Name: Gavin R. Norton

b. Department: School of Physiology

c. Experiment to be modified / extended

AESC NO:

2004	48	4
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d. Project Title: A pilot study to assess the validity of a rodent model of myocardial infarction in South Africa.

e. Number and species of animals originally approved:

45	
----	--

f. Number of additional animals previously allocated on M&Es:

0	
---	--

g. Total number of animals allocated to the experiment to date:

45	
----	--

h. Number of animals used to date:

45	
----	--

i. Specific modification / extension requested:

Rats to be Food deprived

j. Motivation for modification / extension:

- A) Refer to page attached
- B) To include Adriano Dello Iacono (BSc, BSc Honours completing in 2004 in physiology) and Nelson Alves (BSc, BSc Honours completing in 2004 in physiology) as co-investigators in the study. Their role will be to monitor body weight, running distance and food administration, all of which they have previously done during the course of their BSc Honours degree.

Date: 21/09/2004

Signature: 

**RECOMMENDATIONS:**

Date: 22/09/04

Signature: 

Chairman, AESC

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ANIMAL ETHICS SCREENING COMMITTEE  
MODIFICATIONS AND EXTENSIONS TO EXPERIMENTS

- a. Name: Gavin R. Norton  
b. Department: School of Physiology  
c. Experiment to be modified / extended

AESC NO:

2004	48	4
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- d. Project Title: A pilot study to assess the validity of a rodent model of myocardial infarction in South Africa.

- e. Number and species of animals originally approved:

45	
----	--

- f. Number of additional animals previously allocated on: M&Es:

0	
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- g. Total number of animals allocated to the experiment to date:

45	
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- h. Number of animals used to date:

45	
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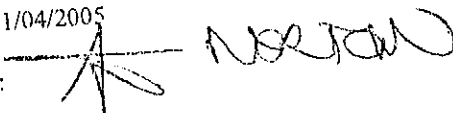
- i. Specific modification / extension requested:

We request permission for a group of rats with a myocardial infarct to be assigned to one of two treatment groups. One group will receive daily subcutaneous injections of the angiotensin II receptor antagonist, losartan (15 mg/kg/day in approximately 0.5 mls of the vehicle, 0.9% saline), and one group will receive daily injections of the vehicle (0.5 mls of the vehicle, 0.9% saline). The duration of the injections will be between 4 and 6 months depending on echocardiographic outcomes.

- j. Motivation for modification / extension:

See attached document

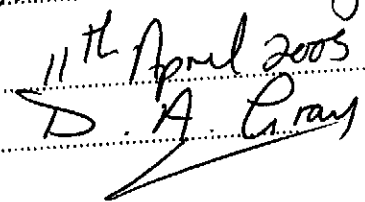
Date: 11/04/2005

Signature: 

RECOMMENDATIONS:

Approved: inclusion of losartan administration in protocol

Date: 11th April 2005

Signature: 

Chairman, AESC



**STRICTLY CONFIDENTIAL****UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG****ANIMAL ETHICS SCREENING COMMITTEE****CLEARANCE CERTIFICATE NO:**

2004

59

4

**APPLICANT:** Professor G Norton**DEPARTMENT:** School of Physiology**PROJECT TITLE:** Impact of Left ventricular Hypertrophy on Myocardial Infarction-Induced Ventricular Remodeling in Rats

Species	Number	Expiry Date
Sprague Dawley	76	July 2006
Rats	38	July 2006
Rats	38	July 2006

- i) Approval is hereby given for the experiment described in the above application.

The use of these animals is subject to AESC Guidelines for the use and care of animals, is limited to the procedures specified in the application form, and to:

**APPROVED**

SIGNED   
(Chairman: Animal Ethics Screening Committee)

DATE: 1 July 2004

- ii) I am satisfied that the persons listed in this application are competent to perform the procedures therein, in terms of Section 23(1)(c) of the Veterinary and Para-veterinary Professions Act (19 of 1982)

SIGNED   
(Registered Veterinarian)

DATE: 1 July 2004

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UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

STRICTLY CONFIDENTIAL

ANIMAL ETHICS SCREENING COMMITTEE (AESC)

CLEARANCE CERTIFICATE NO. 2006/37/04

APPLICANT: Ms D Badenhorst

SCHOOL: Physiology

DEPARTMENT:

LOCATION: Medical School

PROJECT TITLE: Effect of B-adrenoreceptor agonist stimulation on myocardial matrix metalloproteinase activity and expression in spontaneously hypertensive rats


**Number and Species**

24 SHR and 24 WKY/Wistar rats (all male)


Approval was given for to the use of animals for the project described above at an AESC meeting held on 20060425. This approval remains valid until 20080224.

The use of these animals is subject to AESC guidelines for the use and care of animals, is limited to the procedures described in the application form and to the following additional conditions:

None

Signed:  Date: 04/05/06  
(Chairperson, AESC)

I am satisfied that the persons listed in this application are competent to perform the procedures therein, in terms of Section 23 (1) (c) of the Veterinary and Para-Veterinary Professions Act (19 of 1982)

Signed:  Date: 04/05/06  
(Registered Veterinarian)

cc: Supervisor: Professor G Norton  
Director: CAS

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

STRICTLY CONFIDENTIAL

ANIMAL ETHICS SCREENING COMMITTEE (AESC)

CLEARANCE CERTIFICATE NO. 2006/47/04

APPLICANT: Professor AJ Woodiwiss

SCHOOL: Physiology

DEPARTMENT:

LOCATION: Medical School

PROJECT TITLE: Effect of the aldosterone receptor antagonist, spironolactone, on B-adrenergic receptor-induced myocardial apoptosis

**Number and Species**

40 SHR and 40 Wistar/WKY rats (all male)


Approval was given for to the use of animals for the project described above at an AESC meeting held on 20060425. This approval remains valid until 20080224.

The use of these animals is subject to AESC guidelines for the use and care of animals, is limited to the procedures described in the application form and to the following additional conditions:

**List of all drugs to be used must be provided**

Signed:  Date: 04/05/06  
(Chairperson, AESC)

I am satisfied that the persons listed in this application are competent to perform the procedures therein, in terms of Section 23 (1) (c) of the Veterinary and Para-Veterinary Professions Act (19 of 1982)

Signed:  Date: 04/05/06  
(Registered Veterinarian)

cc: Supervisor:  
Director: CAS