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*George Wilson
with compliments
Samira*

**THE EFFECTS OF LONG-TERM INFUSION OF LONG-R3-IGF-I ON
WOOL GROWTH RATE AND WOOL FOLLICLE
CHARACTERISTICS IN ROMNEY SHEEP**

A thesis submitted in partial of fulfilment of the requirements for

the degree of Master of Agricultural Science

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This work dedicated to my parents who encouraged and supported me in my study and they always stand by me even during my absence from home (IRAQ)

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List of Abbreviations

A1	iliac artery
A2	saphenous artery
BF	blood flow
BSA	bovine serum albumin
BrdU	5-bromodeoxyuridine
CBR	cell birth rate
CDR	cell division rate
CI	control infusate
Cu	copper
des(1-3)IGF-I	des(1-3) insulin-like growth factor-I
EC	external control
EGF	epidermal growth factor
FBS	feotal bovine serum
FGF	fibroblast growth factor
GH	growth hormone
GRF	growth hormone releasing factor
h	hour
HS	high sulfur protein
IF	intermediate filament
IFAP	intermediate filament associated protein
IC	internal control
ICC	immunocytochemistry
IGFBPs	insulin-like growth factor binding proteins
IGFBP-1	insulin-like growth factor binding protein-1
IGFBP-2	insulin-like growth factor binding protein-2
IGFBP-3	insulin-like growth factor binding protein-3
IGFs	insulin-like growth factors
IGF-I	insulin-like growth factor-I
IGF-II	insulin-like growth factor-II
IRS	inner root sheath
KAP	keratin associated proteins
LA1	left artery 1
LG3IGF-I	long-G3-insulin-like growth factor-I

LIGF-I	long-insulin-like growth factor-I
LR3IGF-I	long-R3-insulin-like growth factor-I
LS	low sulfur protein
LV	left vein
oPRL	ovine prolactin
oRS	outer root sheath
P (solution)	control solution (refer to Appendix 1)
PAH	para-aminohippuric acid
RA1	right artery 1
RIA	radioimmunoassay
R3IGF-I	R3-insulin-like growth factor-I
RV	right vein
S	sulfur
S (solution)	LR3IGF-I stock solution
SmC	somatomedin C
TCA	trichloroacetic acid
TGF α	transforming growth factor- α
UTS	ultra-high sulfur protein
V	vein
Zn	zinc
min	minute
g	gram
kg	kilogram
μ g	microgram
ng	nanogram
L	litre
μ L	microlitre
ml	millilitre
mM	millimole

Significant levels for statistical tests

0.1%	P<0.001	***
1.0%	P<0.01	**
5.0%	P<0.05	*
>5.0%	P>0.05	NS [†]

[†] non-significant

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