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Genetic Aspects of Hearing Loss in the Limpopo Province of South Africa

Rosemary I Kabahuma

MBCHB (Makerere University), MMED ENT Surgery (University of Nairobi),

MSC Audiological Medicine (University of London)

A thesis submitted in fulfillment of the requirements for the degree of

Doctor of Philosophy

Faculty of Humanities, Department of Speech Pathology and Audiology,

University of the Witwatersrand, Johannesburg, South Africa

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DEDICATION

To Almighty God who has by grace made all this possible.

To my daughters Constance and Theodora, who experienced the cost of a PhD at an early age and yet remained encouraging, supportive, always believing for their mother.

To Ezra whose support gave me the space to fly.

‘But he knows the way that I take; when he has tested me,
I will come forth as gold.’

Job 23:10

DECLARATION

I, Rosemary Ida Kabahuma, do hereby declare that this dissertation submitted in fulfillment of the requirements for the degree of **Doctor of Philosophy** in the Faculty of Humanities, Department of Speech Pathology and Audiology, University of Witwatersrand, is my own original work. All assistance I have received has been stated in the acknowledgements. This work has not been submitted before for any degree or examination at this or any other university. I declare that the protocol was cleared by the Committee for Research on Human subjects, Ethics committee clearance certificate protocol number **M991005**.

Rosemary Ida Kabahuma

____ day of _____ 2010

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LIST OF ABBREVIATIONS

HL	Hearing Level
StatsSA	Statistics South Africa
DNA	Deoxyribose nucleic acid
EcoG	Electrochocleography
GP	general practioner
OME	Otitis media with effusion
PTA	Pure tone average
ECG	Electrocardiogram
MRI	Magnetic resonance imaging
TORCH	Toxoplasmosis, Rubella, Cytomegalovirus, Herpes
CSF	Cerebral spinal fluid
CT	Computerised tomography
CME	Continued medical education
SEN	Special education needs
ENT	Ear Nose and Throat
SNHL	Sensorineural hearing loss
TEOAEs	Transient evoked otoacoustic emissions
ART	Acoustic reflex threshold
PMHC	Pietersburg Mankweng Hospital Complex
ENG	Electronystagmography
NHLS	National Health Laboratory Services
PCR	Polymerized chain reaction
WS	Waardenburg syndrome

ARNSHL	Autosomal recessive nonsyndromic hearing loss
NSSNHL	Nonsyndromic sensorineural hearing loss
NSAHL	Nonsyndromic autosomal hearing loss
Cx26	Connexin 26
DOH	Department of Health
WHO	World Health Organisation
BP	Base Pair(s)
EDHI	early detection of hearing impairment

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