LRC STUDENTS

GRADUATED STUDENTS

Dr Terrence Johan Moore
Post-Doctoral Research fellow
Title of Research Project: A Study to Evaluate the Effect of Low Level Laser Therapy (LLLT) on Dermal and Adipose Stem Cells.

Dr Ahmed El Hussein
Post Doctoral Research Fellow
Title of Research Project: Assessment of DNA Damage after Photodynamic Therapy

Dr Denise Hawkins Evans
Masters (Cum Laude), Doctorate and Post-Doctoral Research Fellow in Biomedical Technology
Title of Dissertation: Screening of a SNO Genomic Library for HPV and p53 Gene Mutations
Title of Thesis: Biological Effects of Low Level Laser Therapy on Normal and Wounded Human Skin Fibroblasts – An In Vitro Study
Title of Research Project: Second Messengers and Phototherapy in Senescent Cells

Dr Nicolette Houreld
Masters, Doctorate and Post-Doctoral Research Fellow in Biomedical Technology
Title of Dissertation: DNA Damage Assessment and Reactivation Tuberculosis in South African Gold Mineworkers and Radiographers
Title of Thesis: Effect of Low Level Laser Therapy on Cellular and Molecular Events in Diabetic Wound Healing – An In Vitro Study
Title of Research Project: Low-Energy Laser Irradiation on Cellular Redox Potential and Collagen Production
Dr. Hemmaragala M Nanjundaswamy
Post-Doctoral Research Fellow
Project Title: Novel Biomolecule-Nanoparticle System: Synthesis, Properties, Cellular Interactions and Cytotoxicity Studies

Dr. Blassan P. George
Post-Doctoral Research Fellow
Project Title: A Comparative Study of Plant Extract and Photosensitizer (MPc) as a Chemotherapeutic Agent: A Novel Treatment Strategy

Dr. Bernard Mvula
Masters and Doctorate Student in Biomedical Technology
Title of Dissertation: Effect of Low Level Laser Irradiation on Human Adult Adipose Derived Stem Cells – an In Vitro Study
Title of Thesis: Differentiation Potential of ADSC’s in Co-Culture with SKUT-1 and the effect of Laser Irradiation

Dr. Palesa Sekhejane
Masters and Doctorate Student in Biomedical Technology
Title of Dissertation: Effect of Low Level Laser Irradiation on Expression of Cytokines and Growth Factors Involved in Wound Healing
Title of Thesis: Subcellular Localization of Zinc Sulfophthalocyanine and its Efficacy for Photodynamic Therapy in Colorectal Cancer Cell Lines (DLD-1 and CaCo-2)
Dr Sello Manoto  
Masters and Doctorate Student in Biomedical Technology  
Title of Dissertation: The Effect of a Zinc Sulphophthalocyanine and Laser Irradiation (636nm) on a Lung Cancer Cell Line (A549)  
Title of Thesis: Phototoxic Effects of Zn Sulphophthalocyanine on Lung Cancer Cells (A549) Grown as a Monolayer and Three Dimensional Multicellular Tumour Spheroids

Dr Tamarisk Horne  
Masters and Doctorate Student in Biochemistry  
Title of Dissertation: Investigating the Effects of In Vitro Photodynamic Treatment with Two Metallophthalocyanine in MCF-7 Breast Cancer Cells  
Title of Thesis: Photodynamic therapy in human cancer cells

Dr Tina Kresfelder  
Doctorate Student in Biochemistry  
Title of Thesis: Evaluation of the Cellular Effects of Two Metallophthalocyanine Compounds Activated During Photodynamic Therapy (PDT) on an Oesophageal Cancer Cell Line

Dr Ivan Mfouo-Tynga  
B.Tech, Masters (Cum Laude), and Doctorate Student in Biomedical Technology  
Title of Research Project: Cellular Effects of Metallated Phthalocyanine and 5-ALA on Human Breast Cancer Cells (MCF-7) Using Low Level Laser Irradiation  
Title of Dissertation: Effectiveness of Zinc Phthalocyanine and Hyericin in Inducing Cell Death in Human Breast Cancer cells (MCF-7) Using Low Intensity Laser Irradiation (LILI)  
Title of Thesis: Combined effects of Zinc Phthalocyanine-antibody-gold nanoparticle conjugates and low intensity laser irradiation (LILI) in human breast and lung cancer cells
Dr Sandra Ayuk
B.Tech, Masters (*Cum Laude*), and Doctorate Student in Biomedical Technology
Title of Research Project: Influence of Low Intensity Laser Irradiation on Nitric Oxide in Isolated Human Skin Fibroblasts
Title of Dissertation: Collagen Production in Wounded Human Skin Fibroblasts in Response to Low Intensity Laser Irradiation
Title of Thesis: The Role of Low Intensity Laser Irradiation on Matrix Proteins and Gene Expression in Various Stressed Fibroblasts Cell Models

Ms Ivy Ndhundhuma
Doctorate Student in Biomedical Technology
Title of Thesis: Photochemical Tumor Detection Modality for Skin Cancer

Mr Francois Kabeya
Doctorate Student in Biomedical Technology
Title of Thesis: Modelling of laser treatment for coronary heart disease

Ms Jennifer De Villiers
B.Tech and Masters Student in Biomedical Technology
Title of Research Project: The Effect of Low Level Laser Therapy on Wounded Cells That Have Been Exposed to Zearalenone
Title of Dissertation: Functionality of Adipose Derived Stem Cells Differentiated Smooth Muscle Cells Using Fluorescent Live Cell Imaging
Mr Alwin Mbene
B.Tech and Masters Student in Biomedical Technology
Title of Research Project: Adaptive Response and DNA Damage in Diabetic Wounded Fibroblast Cells following laser Irradiation
Title of Dissertation: The Effects of Low Level Laser Therapy on Gene Activation, DNA Damage and Repair Using 5 or 16 J/cm^2 on Wounded Human Skin Fibroblast Cells

Mr Innocent Zungu
B.Tech and Masters Student in Biomedical Technology
Title of Research Project: Adaptive Response and DNA Damage in Diabetic Wounded Fibroblast Cells following Laser Irradiation
Title of Dissertation: Mitochondrial Responses of Normal and Injured Human Skin Fibroblasts Following Low Level Laser Irradiation - An In Vitro Study

Ms Nicole Yiannakis
Masters Student in Biochemistry
Title of Dissertation: The Effect of a Zinc Sulphophthalocyanine Used During Photodynamic Therapy on an Oesophageal Cancer Cell Line

Ms Lindie Saayman
Masters student in Chiropractic
Title of Dissertation: The Effect of Chiropractic Manipulative Therapy and Low Level Laser Therapy on Cervical Facet Syndrome
Ms Annelise Bresler
Masters student in Homeopathy
Title of Dissertation: The Effect of Calendula Officinalis 3cH and Low Level Laser Therapy on Wound Healing in Human Skin Fibroblasts In Vitro

Ms Tebogo Mathope
Masters student in Biomedical Technology
Title of Dissertation: The Effect of Low Level Laser Radiation on the Differentiation of Human Adult Adipose Derived Stem Cells into Smooth Muscle Cells

Ms Cherie Robertson
Masters student in Biotechnology
Title of Dissertation: The Effect of Photodynamic Therapy on Melanoma Cells

Ms Fezile Khumalo
B.Tech and Masters Student in Biotechnology
Title of Research Project: The Effect of Laser Therapy on Wounded Deoxynivalenol Exposed Fibroblast Cells
Title of Dissertation: Investigation into Microfluidic Devices for Particle Separation

Mr Roland Masha
Masters Student in Biomedical Technology
Title of Dissertation: Effect of Laser Irradiation on Enzyme Kinetics of Mitochondrial Respiratory Chain Complexes
Ms Anine Crous
B.Tech and Masters (Cum Laude) Student in Biomedical Technology
Title of Research Project: The isolation and Characterisation of Cancer Stem Cells From a Lung Cancer Cell Line (A549) and the Effects of LILI on Viability and Proliferation
Title of Dissertation: The Effect of Low Intensity Laser Irradiation on Cancer Stem Cells Isolated from Lung and Breast Cancer

Ms Sania Kadanyo
Masters Student in Nanoscience
Title of Dissertation: Synthesis and Characterisation of Copper Nanoparticles and its Photoactive Effect in Colorectal Cancer Cells

Mr Sandy Jere
Masters Student (Cum Laude) in Biomedical Technology
Title of Dissertation: Effect of photobiomodulation at 660nm on the JAK/STAT signalling pathway in diabetic wounded cells

Ms Khosi Mpofana
Masters Student in Somatology
Title of Dissertation: Effectiveness of Light Emitting Diode in the Treatment of Melasma on Skin Types V and VI
Mr Eric Aniogo
Masters Student in Biomedical Technology
Title of Dissertation: Combined effects of photodynamic therapy and chemotherapeutic drugs on MCF-7 breast cancer cells (PDT)

Ms Leezanne Nelson
B.Tech Student in Biomedical Technology
Title of Research Project: The Effect of Laser Therapy on Wounded and Non-Wounded Cells Exposed to the Mycotoxin, Fumonisin B1

Ms Sefudi Sefalafala
B.Tech Student in Biotechnology
Title of Research Project: The Effect of Low Level Laser Therapy on Wounded Cells Exposed to the Mycotoxin, Aflatoxin B1

Ms Marike Jansen Van Rensburg
Honours Student in Biochemistry
Title of Research Project: The Effect of Photosense and Laser Irradiation on Hsp70 Expression, Cell Viability and Proliferation of Lung Cancer Cells (A549)

Mr Andreas Fusi
B.Tech student in Biomedical Technology
Title of Research Project: Methods Used to Determine the Effect of PDT in Melanoma Cells
Mr Collins Chilala
B.Tech Student in Biomedical Technology
Title of Research Project: Methods to Assess Mechanisms Involved in Laser Irradiated Wounded Fibroblast Cells

Ms Stavroela Muller
B.Tech Student in Biomedical Technology
Title of Research Project: Effect of Different Fluencies of Low Level Laser Irradiation (LLLI) of Adipose Derived Stem Cells at a Wavelength of 680 nm

Mr Leonard Nlovo
B.Tech Student in Biotechnology
Title of Research Project: Effect of low level laser irradiation on Adipose Derived Stem Cells (ADSCs) Using Different Fluencies at a Wavelength of 830 nm

Mr Gustav Ololo
B.Tech Student in Biotechnology
Title of Research Project: Assessment of the Effectiveness of ZnPc Photosensitizer on a Colorectal Cell Line (Caco-2) Using Low Power Laser Irradiation

Ms Lindiwe Dlamini
B.Tech Student in Biotechnology
Title of Research Project: The Isolation and Characterisation of Cancer Stem Cells (CSCs) From a Breast Cancer Cell Line (MCF-7) and the Effects of LILI on Viability and Proliferation
Mr Bahle Nteleki
B.Tech Student in Podiatry
Title of Research Project: The Use of Phototherapy and Podiatric Intervention to Manage Chronic Lower Limb Ulcerations in Patients with Type II Diabetes Mellitus: A Pilot Study

Ms Raeesah Ismail
B.Tech Student in Biotechnology
Title of Research Project: Effect of Low Intensity Laser Irradiation at 680 nm on Cancer Cell Proliferation and DNA Methylation Status

Ms Modishe Maila
B.Tech Student in Biotechnology
Title of Research Project: Effect of Low Intensity Laser Irradiation at 830 nm on Cancer Cell Proliferation and DNA Methylation Status

Ms Lerato Moroena
B.Tech Student in Biomedical Technology
Title of Research Project: Effect of 660 nm on the JAK/STAT Signalling Pathway in Diabetic Wounded Fibroblast Cells

Ms Patricia Kasowanjete
B.Tech Student in Biomedical Technology
Title of Research Project: Cellular Response (Physical/Chemical Changes) of Colorectal Cancer Cells (Caco-2 Cells) Treated with Different Concentration of Hypericin and Aluminium Pthalocyanine

Mr Abraham Banda
B.Tech Student in Biomedical Technology
Title of Research Project: The Role of Low Intensity Laser Irradiation on the Differentiation of Adipose Derived Stem Cells into Neural Cells
Ms Thabisile Mabuza
B.Tech Student in Biomedical Technology
Title of Research Project: An in vitro study of phototoxicity of gold nanoparticle conjugated 5 ALA on human melanoma (A375) cancer cells

Ms Tshepiso Masekoameng
B.Tech Student in Biomedical Technology
Title of Research Project: Effect of Gold Nanoparticle Conjugated Zinc Sulfophthalocyanine on Cell Proliferation and Viability of A549 Cancer Cells

Mr Bewketu Ayele
B.Tech Student in Biomedical Technology
Title of Research Project: Influence of 660 and 830 nm on the transformation of WS1 skin fibroblasts into myofibroblasts

Mr Mpho Mokwena
B.Tech Student in Biomedical Technology
Title of Research Project: Colorectal adenocarcinoma stem cell response to photodynamic therapy using zinc phthalocyanine
CURRENT POST DOCTORAL FELLOW / STUDENTS

Post-Doctoral Fellows

Dr Sathish Sundar Dhipil Kumar
Project Title: Selective Laser Efficiency of Green Synthesized Silver Nanoparticles by Aloe Arborescens and its Wound Healing Applications: In Vitro

Dr Naresh Rajendran
Project Title: Influence of Photobiomodulation on Oxidative Stress in an In Vitro Diabetic Wounded Skin Co-Culture Model

Dr Rahul Chandran
Project Title: Differentiation of Mesenchymal Stem cells isolated from Liver Cells to Insulin Producing β-Like cells for diabetic therapy
Dr Ivan Mfou-Tynga
Project Title: Phototoxic Effects of Zn Sulfophthalocyanine on Breast and Lung Cancer Cells Grown as a Three Dimensional Multicellular Tumour Spheroids (PDT)

Dr Sandra Matabi Ayuk
Project Title: In vitro effects of AlPc-based PDT on P13k/Akt/mTor signalling pathway in lung cancer cells

Current Students – Doctorate

Mr Sajan George
Doctorate Student in Biomedical Technology
Title of Thesis: Laser Induced Differentiation of Human Adipose Stem Cells to Functional Neuronal Cells

Mrs Asma Shaikh-Kader
Doctorate Student in Biomedical Technology
Title of Thesis: Influence of Photobiomodulation on the Inflammatory Response in a Diabetic Wounded Fibroblast Cell Model
Ms Anine Crous
Doctorate Student in Biomedical Technology
Title of Thesis: The Effect of Low Intensity Laser Irradiation on Cancer Stem Cells Isolated from Lung and Breast Cancer

Mr Sandy Jere
Doctorate Student in Biomedical Technology
Title of Thesis: Influence of photobiomudulation at 660 nm on the PI3K/AKT/mTOR signalling pathway in diabetic wound healing.

Mr Eric Aniogo
Doctorate Student in Biomedical Technology
Title of Thesis: An Investigation into the Synergistic Effect of Doxorubicin and Photodynamic therapy on MCF-7 Breast cancer cells.

Dr Vesna Karic
Doctorate Student in Biomedical Technology
Title of Thesis: Laser induced differentiation of human adipose derived stem cells to functional fibroblasts and chondrocytes of the temporomandibular joint disc
Mrs Prabhavathi Sundaram
Doctorate Student in Biomedical Technology
Title of Thesis: Biopolymer Functionalized Carbon Nanotubes for the Targeted Delivery of Doxorubicin to Gastric Cancer Stem Cells

Current Students – Masters

Ms Nozipho Sithole
Masters Student in Podiatry
Title of Dissertation: Phototherapy and podiatric intervention for the management of chronic lower limb ulcerations in patients with type II Diabetes Mellitus and skin type III and V.

Ms Nadia Dembskey
Masters Student in Podiatry
Title of Dissertation: The effectiveness of laser treatment for Onychomycosis

Ms Ndilulo Elodie Kiro
Masters Student in Biomedical Technology
Title of Dissertation: Impact of Low Intensity Laser Irradiation on Breast and Cervical Cancer Stem Cells
Ms Dimakatso Mokoena
Masters Student in Biomedical Technology
Title of Dissertation: Influence of 660 and 830 nm on the Differentiation of Fibroblasts into Myofibroblasts

Mr Elvin Chizenga
Masters Student in Biomedical Technology
Title of Dissertation: The Development of a Multicomponent Nanoparticle Based System as an Efficient, Specific and Targeted Drug Delivery System for the Photodynamic Treatment of Cervical Cancer Stem Cells

Ms Channay Naidoo
Masters Student in Biomedical Technology
Title of Dissertation: The Development of a Multicomponent Nanoparticle Based System as an Efficient, Specific and Targeted Drug Delivery System for the Photodynamic Treatment of Melanoma Cancer Cells

Mr Mpho Mokwena
Masters Student in Biomedical Technology
Title of Dissertation: The Development of a Multicomponent Nanoparticle Based System as an Efficient, Specific and Targeted Drug Delivery System for the Photodynamic Treatment of Lung Cancer Cells