





HUB RESEARCH DAY PROGRAM

07 September 2022

Session	Activity	Time	Speaker / Presenter	Title	Session Chair	
Registration and Welcome	Registration / Poster Setup	08h15 to 08h45				
HUB Research Day Inauguration	Welcome Address	08h45 to 09h00	Prof. Sharon Prince Head of Dept. of Human Biology	HUB Research Day 2022 Welcome Address	Prof. Sudesh Sivarasu Chair, HRD2022	
	Keynote Address 1	09h00 to 09h20	Prof. Ntobeko Ntusi Chair & HOD: Department of Medicine, UCT	My journey through academia and lessons learnt	Prof. Sharon	
Plenary Session 1 Venue: New Learning Centre, Anatomy Building	Keynote Address 2	09h20 to 09h40	Prof. Valerie Mizrahi Director, Institute of Infectious Disease & Molecular Medicine	Lessons learned from my journey as a basic TB researcher in South Africa	Prince / Prof. Sudesh Sivarasu	
	Round Table 1	09h40 to 10h00	Prof. Ntobeko Ntusi & Prof. Valerie Mizrahi			
Venue: Frances Ames, Bernard Fuller Building	Coffee Break 10h00 to 10h20					









Constant	A	T :	Speaker /	Presenter		T [4] -	Session Chair										
Session	Activity	Time	Presenter	Abstract ID		Title											
		10h20 to 10h30	Fleur Warton	HRD22038	OP01	Corpus callosum area in HIV and ART exposed uninfected neonates											
		10h30 to 10h40	Chelsey Voegt	HRD22021	OP02	Bilateral hip dysplasia in a South African individual from the 17th – 19th century.											
		10h40 to 10h50	Thulisa Mkatazo	HRD22034	OP03	Modelling the early development of cartilage and bone in Mseleni Joint Disease using induced pluripotent stem cells											
Technical Session 1	Oral Presentations	10h50 to 11h00	Amalia N Awala	HRD22036	OP04	An investigation of microglial activation in neurocysticercosis	Prof. Thomas Franz										
Venue: New Learning Centre, Anatomy	10 mins per presentation 7mins + 3mins Q&A	11h00 to 11h10	Farai Mberi	HRD22063	OP05	Tractographic Analysis of HIV-related Changes in Structural Connectivity in Children Living With HIV	A/Prof. Geney Gunston										
Building		11h10 to 11h20	Justine van Greenen	HRD22035	OP06	Electroporation: a cost-effective system to validate putative enhancer activity in the context of the human brain.	Guiston										
			11h30 to 11h40	Arron Correia	HRD22032	OP07	Investigating the effect of fear of sleep on self- reported sleep measures in African-origin residents of a low-income setting										
														11h40 to 11h50	Alexandra Lancaster	HRD22026	OP08
	Change of Venue: Lunch Poster Sessions																
Technical session 2 Venue: Frances Ames, Bernard Fuller Building	Poster Presentations (max 24 posters) per session	12h00 to 13h00	PP01 to PP24			Physical Posters	A/Prof. Asfree Gwanyanya A/Prof. Delva Shamley										









Technical session 3 Venue: Frances Ames, Bernard Fuller Building	Poster Presentations (max 24 posters) per session	13h00 to 14h00	PP25 to PP48			Physical Posters	Dr. Dale Rae Dr. Frances Robertson		
Change of Venue: Oral Sessions									
Session	Activity	Time	Speaker /	Presenter		Title	Session Chairs		
56551011	Activity	Time	Presenter	Abstract ID		inte	Session Chairs		
		14h10 to 14h20	Kentse Mpolokeng	HRD22031	OP09	The ophthalmic artery originating from the anterior cerebral artery.			
		14h20 to 14h30	Alinafe Kaliwo	HRD22039	OP10	The Integration and Testing of Tele-audiology Services on a Non-Standalone Radio Access Network of a 5G-enabled Digital Health Testbed			
	Oral	14h30 to 14h40	Atoosa Amel	HRD22014	OP11	Building a stem cell-based in-vitro model of early mammalian development.			
Technical Session 4	Presentations 10 mins per	14h40 to 14h50	Dale Rae	HRD22059	OP12	Associations between chronotype and PERIOD3 variable number tandem repeat genotype in individuals with different levels of physical activity	Dr. Shareif Henricks		
Venue: New Learning Centre, Anatomy	presentation 7mins + 3mins	14h50 to 15h00	Muhammad Arshad Eyasim	HRD22027	OP13	Design and Development of a CPAP Device with an Automated MDI Delivery System	Dr. Mubeen Goolam		
Building	Q&A	Q&A	Q&A	15h00 to 15h10	Claire Bellis	HRD22061	OP14	The marine-derived antibiotic chromomycin A5 targets the oncogenic TBX2: a new strategy to treat breast cancer	
		15h10 to 15h20	Megan Blacker	HRD22060	OP15	Diagnosing sarcopenia in cancer patients using alternative markers of muscle mass			
		15h20 to 15h30	Amanda Menzele	HRD22022	OP16	Hyperglycaemia-induced impairment of autorrhythmicity and impulse propagation in cardiac stem cells			
Venue: Frances Ames, Bernard Fuller Building	e: Frances Coffee Break, Networking & Voting of Crowd Favourite Presentations 15b30 to 16b00								
				3					











Plenary Session 5	Keynote Address 3	16h00 to 16h20	Prof. Stephanie Burton President of the Royal Society of South Africa & member of the Council of Academy of Science of South Africa (ASSAf)	From biotechnology to sustainability, and an academic career in interesting times	Dr. Adhil		
Venue: New Learning Centre, Anatomy Building	Keynote Address 4	16h20 to 16h40	Prof. Iqbal Parker Professor of Medical Biochemistry and Structural Biology	An Update in our Understanding of the Molecular Biology of Oesophageal Cancer	Bhagwandin		
	Roundtable Discussion 2	16h40 to 17h00	Prof. Stephanie Burton & Prof. Iqbal Parker				
Closing & Awards Venue: New Learning Centre, Anatomy Building	17h00 to 17h30: Closing & Awards						
Venue: Anatomy Building Foyer	Find of Program & Cocktail 17/h30 onwards						











				Poster P	resentatio	ons: Session 1 12h00 to 13h00		
	Time Speaker/Presen		Speaker/Present	er				
Session	Activity	Slot	Presenter	Abstract ID	Presenter ID	Title	Session Chair	
			Ntokozo Magubane	HRD22017	PP01	Design, Verification and Validation of a Dynamic Model for an Intramuscular Autoinjector		
			Stephen Jermy	HRD22043	PP02	Investigating the clinical viability of a control system-based slice-following sequence for free-breathing cardiovascular DTI		
Technical			Habtamu Yimam	HRD22046	PP03	Bone-plate fitting assessment of novel anatomical acromion plates		
session 2	2	12h00 to 13b00	Joel Philpott	HRD22023	PP04	Design and Development of a BPAP Non-invasive Ventilator: Prototype Development		
Venue:				to 13h00	Dr Roopam Dey	HRD22009	PP05	How does mechanism of injury influences scapula fracture pattern?
Frances Ames,	Poster Presentations		Maureen Etuket Dimitria	HRD22024	PP06	South African medical device regulatory pathways: A case study of the effect of the emergency authorisation protocols during the Covid-19 pandemic.	Gwanyanya & A/Prof. Delva Shamlev	
Bernard Fuller		PP01 to PP24	Jonathan Oehley	HRD22007	PP07	Development of an Ultraviolet Irradiation Device: Initial Bacterial Inactivation Profile	Shanney	
Building				Thidilweli Denga	HRD22050	PP08	Establishing the equivalence of tele-audiology and in-person audiology practice	
		Sadiyah Malek	HRD22001	PP09	Assessment of morphological cranial and mandibular traits for sex estimation in southern African Holocene San and Khoekhoe populations.			
			Reagobaka Lichaba	HRD22033	PP10	Brain ventricle variations in a sample of South African cadavers.		











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	Sandile Ntuli	HRD22025	PP11	The association between the gross anatomical variations of the extra-cranial Internal Carotid Artery (ICA) and the corresponding histological structural adaptations in the arterial wall	
	Sahar Jamal	HRD22037	PP12	Investigating gene regulation in the maturing human brain at single-nucleus resolution	
	Teresa Steyn	HRD22008	PP13	Exploring innate immune modulation of cell-type-specific gene expression and neuronal excitability in organotypic brain slice cultures	
	Christina Steyn	HRD22013	PP14	Exploring temporal gene expression dynamics during human brain maturation: a single- nucleus RNA sequencing study of the paediatric and adult brain *(AW)	
	Carly Burmeister	HRD22012	PP15	Investigating the co-operation between the human papillomavirus (HPV) oncoproteins E6/E7 with the oncogenic T-box transcription factor 3 (TBX3) to promote cervical cancer.	
	Emmanuel Nwosu	HRD22015	PP16	Reduced physical activity: A Risk behaviour for obesity in South African girls.	
	Natalie Erskine	HRD22062	PP17	Social network analysis of stakeholder collaboration for rugby union innovation globally	
	Yumna Albertus	HRD22052	PP18	Robotic walking to mitigate bone mineral density decline and adverse body composition in individuals with incomplete spinal cord injury	
	Muhammed Rizaan Behardien	HRD22018	PP19	Technical Proficiency Compared During Successful and Unsuccessful Tackles in International Rugby-7s.	
	Dane Sevenster	HRD22045	PP20	Hyperglycaemia-induced changes to the pericytes and astrocytes in a rat retinal culture model	
	Edmund Wessels	HRD22042	PP21	Comparative Usability Trial of a Novel Flexible Handheld Hysteroscopy System	
	Simone Rossouw	HRD22049	PP22	Developing an in vitro culture system of embryonic development using 3D stem cell culture *(AW)	
	Emily Ruth Higgitt	HRD22056	PP23	A characterization of the neuroimmune response to cryptococcal infection.	
	Stephen Jermy	HRD22044	PP24	Development of a Prospectively Motion Corrected Free-breathing FLASH Sequence	
		Sahar Jamal Sahar Jamal Teresa Steyn Christina Steyn Carly Burmeister Emmanuel Nwosu Natalie Erskine Yumna Albertus Muhammed Rizaan Behardien Dane Sevenster Edmund Wessels Simone Rossouw Emily Ruth Higgitt	Sahar Jamal HRD22037 Teresa Steyn HRD22008 Christina Steyn HRD22013 Carly HRD22012 Burmeister HRD22012 Emmanuel HRD22015 Nwosu HRD22015 Natalie Erskine HRD22062 Yumna Albertus HRD22052 Muhammed Rizaan HRD22052 Muhammed Rizaan HRD22018 Behardien HRD22045 Edmund HRD22045 Edmund HRD22045 Edmund HRD22042 Simone HRD22049 Rossouw HRD22049	Sahar JamalHRD22037PP12Teresa SteynHRD22008PP13Christina SteynHRD22013PP14Carly BurmeisterHRD22012PP15Emmanuel NwosuHRD22015PP16NwosuHRD22052PP17Yumna AlbertusHRD22052PP18Muhammed Rizaan BehardienHRD22018PP19Dane SevensterHRD22045PP20Edmund WesselsHRD22042PP21Simone RossouwHRD22049PP23Emily Ruth HiggittHRD22056PP23	Sandile NtuliHRD22025PP11Carotid Artery (ICA) and the corresponding histological structural adaptations in the arterial wallSahar JamaiHRD22037PP12Investigating gene regulation in the maturing human brain at single-nucleus resolutionTeresa SteynHRD22008PP13Exploring innate immune modulation of cell-type-specific gene expression and neuronal exitability in organotypic brain slice culturesChristina SteynHRD22012PP14Exploring temporal gene expression dynamics during human brain maturation: a single- nucleus RNA sequencing study of the paediatric and adult brain *(AW)Carly BurmeisterHRD22012PP15Investigating the co-operation between the human papillomavirus (HPV) oncoproteins E6/F7 with the oncogenic T-box transcription factor 3 (TBX3) to promote cervical cancer.Emmanuel NwosuHRD22052PP16Reduced physical activity: A Risk behaviour for obesity in South African girls.Vumma AlbertusHRD22052PP17Social network analysis of stakeholder collaboration for rugby union innovation globallyYumna AlbertusHRD22018PP19Technical Proficiency Compared During Successful and Unsuccessful Tackles in intervational Rugby-7s.Dane SevensterHRD22042PP20Hyperglycaemia-induced changes to the pericytes and astrocytes in a rat retinal culture modelEdmund WesselsHRD22043PP21Comparative Usability Trial of a Novel Flexible Handheld Hysteroscopy SystemSimone RossouwHRD22049PP22Developing an in vitro culture system of embryonic development using 3D stem cell culture *(AW)Emily Ruth HiggittHRD2











				Poster P	resentatio	ons: Session 2 13h00 to 14h00	
Time		Time	Speaker/Presente	er			
Session	Activity	Slot	Presenter	Abstract ID	Presenter ID	Title	Session Chair
		Dr Roopam Dey	HRD22010	PP25	Post-surgical coracobrachialis kinematics in RTSA and Latarjet models		
			Abby Blocker	HRD22048	PP26	A virtual clinic model for application in rural areas	
			Brandon Reabow	HRD22020	PP27	The Design and Development of a Low-Cost and Functional High Flow Nasal Oxygen Device	
	Anika Mac Arthur 13h00 to Anika Mac Arthur Qhamani Maqungu		HRD22053	PP28	Does living with HIV alter neural circuits involved in reward processing during adolescence?	A/Prof. Asfree Gwanyanya & A/Prof. Delva Shamley	
			HRD22054	PP29	Design and Development of Tracking Device for Adrenaline Autoinjector to Integrate with Emergency Services		
Venue: Frances	rances Presentations mes,	Maureen Etuket	HRD22005	PP30	Design and Development of an Open-Source ADL-Compliant Prosthetic Arm for Trans- radial Amputees.		
Ames, Bernard		Cliff Lowan	HRD22058	PP31	Design and Development of a Portable Multi-user Medical Grade Oxygen Concentrator		
Fuller PP48	Jessi-Siobhan Masters	HRD22051	PP32	Relating the Application Force of Ultrasound Probes and Auto-Injectors with a Force Measurement Device			
	Maurine Chepkoech Daniël Kotze		HRD22041	PP33	Implementation and Evaluation of Telehaptics over the 5G Tactile Internet for Complete Remote Immersion - Towards 5G Powered Telesurgery		
		Daniël Kotze	HRD22003	PP34	Application of the bioarchaeology of care framework: A case study from Northern Cape, South Africa	1	
			Luthando Swaai	HRD22028	PP35	Morphologic and Morphometric Study of Foramen Ovale and Rotundum: An Anatomic Study	1









	Motsoeneng Mamonyowe Portia	HRD22011	PP36	Breast cancer rehabilitation services in South Africa and survivor experience of these services in two dedicated cancer units *(AW)
	Stephanie Maria Ncube	HRD22002	PP37	The c-Myc/TBX3/Nucleolin signalling axis in breast cancer
	Mihlali Vuyo Mlaza	HRD22006	PP38	Marine-derived chromomycin A5: a novel strategy to treat TBX2-driven rhabdomyosarcoma
	Ruvimbo Mishi	HRD22016	РР39	Profiling the dynamics of the active transcriptome in juvenile and adult brain using spatial transcriptomics
	Sagel Julia Kundieko	HRD22047	PP40	Investigating the effects of neuroinflammation on network excitability in neurocysticercosis
	Ashleigh Thomas	HRD22019	PP41	Training, match, and non-rugby activities of elite male Under-18 rugby players.
	Reneilwe Modibedi	HRD22055	PP42	The effect of HIV on skeletal muscle and depot (gluteal and abdominal) specific adipose tissue mitochondrial function in postpartum women.
	Dominique Rosslee	HRD22029	PP43	Association between sleep and concussion is adult rugby players
	Maahir Kauchali	HRD22057	PP44	The Neuroimmune Response to Cryptococcus Neoformans Capsule fractions
	Philippa Forshaw	HRD22004	PP45	Sleep, cardiovascular disease risk and nocturnal blood pressure dipping in adults of African descent
	lyanuoluwa Oyetunji	HRD22040	PP46	Nutritional and Health Status of HIV+ Adults Attending a Healthcare Facility in Cape Town
	Estelle Lambert	HRD22064	PP47	Does physical activity, in part, explain the lower-than-expected mortality from Covid-19 in Sub-Saharan Africa and other lower- and middle-income countries?
	Feroza Lekota	HRD22030	PP48	The Evaluation of a Social Media Health Campaign to Increase Engagement Rate, Reach & Health Education for Behaviour Change: The case for WoW!

*(AW) Abstract Withdrawn by the authors









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