

HUB RESEARCH DAY: MAKING CONNECTIONS
12 SEPTEMBER 2018
NEW LEARNING CENTRE, FHS

08h00 Registration

09h00 – 09h30 **Opening Session** **Chairs: T Franz**

- 09h00 **Welcome**
Departmental Research Committee
- 09h05 **Keynote Address**
Making Connections Beyond South Africa's Borders: International Student Exchange
Erin Pienaar: IAPO
- 09h25 **Questions**

09h30 – 10h45 **SESSION 1** **Chairs: K Keet / T Franz**

- 09h30 **The perceived effectiveness of a target intervention in South African cricket**
Mary-Ann Dove
- 09h45 **Whole exome sequencing: a novel approach to exploring the genetic basis of musculoskeletal soft tissue injuries**
Andrea Gibbon
- 10h00 **Reliability of rotational knee laxity measurements in healthy participants using the RKT device**
Sam Beckley
- 10h15 **Identification of Susceptibility Loci For Musculoskeletal Soft Tissue Injuries Using A Biological Network Mapping Strategy**
Senanile Dlamini
- 10h30 **Clinically significant predictors of malnutrition in juvenile male and female on-remand detainees in Pollsmoor correctional facility in Cape Town to advise intervention planning.**
Marieke Theron
- 10h45 **Volumetric brain differences between high activity and low activity individual and the relationship with heart rate**
Tasneem Paruk

10h45 – 11h15 **BREAK / POSTER SESSION 1 (Posters 1 – 9)** **Chairs: D Hockman / H Maranyane**

11h15 – 13h00 **SESSION 2** **Chairs: M Holmes / S Booley**

- 11h15 **Noise reduction during diffusion tensor imaging of infants**
JP Jordaan
- 11h30 **Subject-specific biventricular finite element models of healthy and failing swine hearts from high-resolution DT-MRI**
Kevin Sack
- 11h45 **A genome-wide assessment of the ancestral neural crest gene regulatory network**
Dorit Hockman
- 12h00 **Repurposing of commercial drugs that target the oncogenic TBX3 for anti-cancer activity in cervical cancer.**
Saif Khan

12h15	TBX3 activates inhibitor of differentiation, ID1, to promote the malignant melanoma phenotype <u>Jade Peres</u>
12h30	Micromechanical Homogenization Method to Study the Effect of Cell Morphology and Stress Fibre Content on Intracellular Deformation <u>Tamer Abdalrahman</u>
12h45	Resting state functional connectivity alterations in adolescents with fetal alcohol spectrum disorders <u>Jia Fan</u>
13h00 – 13h30	LUNCH / POSTER SESSION 2 (Posters 10 – 19) Chair: J Fan / F Robertson
13h30 – 15h00	SESSION 3 Chairs: Y Albertus / J Fortuin
13h30	The palladacycle complex AJ-5 induces apoptotic and necroptotic cell death while reducing autophagic flux in rhabdomyosarcoma cells <u>Bleloch, Jenna</u>
13h45	The T-box transcription factor 3 (TBX3) promotes the oncogenic phenotype of embryonal rhabdomyosarcoma <u>Hapiloe Maranyane</u>
14h00	Effects of perinatal HIV infection on metabolic activity are apparent in the peritrigonal white matter at 11 years, despite restored activity in the basal ganglia and midfrontal gray <u>Amy Graham</u>
14h15	Targeting the oncogenic TBX3 and its co-factors in anti-cancer drug development <u>Stephanie Ncube</u>
14h30	Exploring chloride homeostasis in neurons using biophysical models <u>Kira Dusterwald</u>
14h45	Loss of associations between basal ganglia volumes and neuropsychological scores in HIV-infected children at 5 years <u>Abdul Ibrahim</u>
15h00 – 15h15	BREAK / POSTER SESSION 3 (Posters 20 -28) Chairs: S Hendricks / B Malila
15h15 -16h15	SESSION 4 Chairs: B Malila / B Najaar
15h15	TBX3 represses the pro-apoptotic factor, CERS1, in malignant melanoma <u>Mohsin Khan</u>
15h30	DTI based tractographic analysis of white matter alterations in HIV infected children <u>Joanah Madzime</u>
15h45	The T-box transcription factor TBX3 activates expression of COL1A2 to impact migration of fibrosarcoma and chondrosarcoma cells <u>Rehana Omar</u>
16h00	Ongoing white matter alterations in HIV infected and HIV exposed children: a DTI study at 9 years. <u>Farai Mberi</u>
16h15	COCKTAIL FUNCTION AND PRIZE GIVING Chair: T Franz / M Collins

10h45 – 11h15**Poster Session 1****Chairs : D Hockman / H Maranyane**

1	Jordaan, JP	Noise reduction during diffusion tensor imaging of infants
2	Malise, Austin	Hair follicle induction in human foreskin keratinocytes using neonatal mouse mesenchymal cells
3	Farao, Jaydon	User-interface design and evaluation for a mobile phone detection of latent tuberculosis
4	Gitau, Nyotu	Assessing knowledge diffusion in eHealth within the public health sector in Kenya using social network analysis abstract
5	Mkhumbuzi, Nonhlanhla	Use of the short forms of the McGill pain questionnaire and the Brief Pain Inventory to assess chronic Achilles tendon pain.
6	Chatiza, Tariro	Morphological characterisation of layer 2/3 cortical neurons in the developing human brain
	Currin, Christopher	Chloride dynamics alter the input-output properties of neurons
7	Davidow, Demi	Tackle technique of rugby union players during head impact tackles compared to injury free tackles
8	Davidow, Demi	The Effect of Physical Fatigue on Tackle Technique in Rugby Union

13h00 – 13h30**Poster Session 2****Chairs : J Fan / F Robertson**

9	De Lange, Anja	Tapeworms and the brain: a puzzling affair
10	Finaughty, DA	The mummies of the Cape: precocious natural mummification in the Western Cape
11	Fouefack, Rassaire	Automatic segmentation of the humerus from CT volumes using statistical shape models and Markov Chain Monte Carlo methods
12	Higgins, Ghodeejah	Microrheology as a tool to distinguish tumour spheroid cell detachment from migratory cells
13	Karanja, Yvonne	Three-dimensional estimation of volumetric bone mineral density from X-ray images Application to spinal osteoporosis
14	Keet, Kerri	50 years of research into the branching pattern of the aortic arch
15	Keet, Kerri	Diameter of the femoral-iliac arterial pathway used in percutaneous access of the heart in cardiac surgery
16	Maclean, Sarah	Mobile phone-based evaluation of latent tuberculosis infection using machine learning.

15h00 – 15h15**Poster Session 3****Judges: S Hendricks / B Malila**

17	Majola, Khwezi	A Smartphone Image Based Solution To Measuring Body Mass Index
18	Mohamed, Luqmaan	The anti-breast cancer activity of an extract, KB2, derived from the indigenous Kraalbos plant <i>Galenia Africana</i>
19	Motchon, Dodzi	Prediction of deformations in a micro-structurally dispersed therapeutic biomaterial injectate in the infarcted rat
20	Mpolokeng, Kentse	Case Presentations- Unusual fissures in the lungs leading to supernumerary lobes
21	Msosa, Chimwemwe	Mechanics of erythrocyte membrane wrapping during active invasion of a Plasmodium falciparum merozoite
22	Nwosu, Emmanuel	Antiretroviral therapy (ART) interruption is associated with reduced cortical structures at age 5 years compared to uninterrupted.
23	Spies, Max	Vertebrate scavenging in the Western Cape
24	Woods, Keri	Decreased activation in the auditory cortex in HIV infected children