

## **JCRC Research Collaborative Networks**

Almost all research and training activities conducted at JCRC are performed in collaboration with national and/or international institutions. Over the years, collaborative research has been instrumental in standardising the research practices at JCRC, so as to meet international standards. Among the notable research and training networks to which JCRC has maintained over the years include ACTG, MRC CTU, CWRU, PharmAccess, and others.

### **JCRC - ACTG Research Collaboration**

Since 2007, JCRC has been a site for the AIDS TRIALS Clinical Group (ACTG) trials. Several clinical trials are being conducted under this partnership, including:

- A5221: A Strategy of Immediate versus Deferred Initiation of Antiretroviral Therapy for HIV-Infected Persons Treated for Tuberculosis with CD4<200 cells/mm<sup>3</sup>. This study is investigating the optimal time for the initiation of ART among previously ART-Naive patients that present with active tuberculosis.
- A5207: Optimal Combination therapy after nevirapine exposure (OCTANE). This study is investigating various approaches to PMTCT, particularly the benefit by the introduction of extended use of NRTIs and or a Boosted PI, in the prevention of ART resistance that has previously been observed in PMTCT interventions that rely on Single dose Nevirapine.
- A5208: A Phase II Randomised Comparison of Three Antiretroviral Strategies Administered for 7 or 21 Days to Reduce the Emergence of Nevirapine Resistant HIV-1 Following a Single Intrapartum Dose of Nevirapine (Maintaining Options for Mothers Study). This is also known as the MOMs Study. This study is investigating the optimal first line ART regimen for women that were previously exposed to Single dose nevirapine during labour.
- A5234: Modified Directly Observed Therapy Versus Self-Administered Therapy for Participants with First Virologic Failure on a Non-Nucleoside Reverse Transcriptase Inhibitor-Containing Antiretroviral Regimen. This is an intervention study to evaluate the added benefit of trained treatment support partners to supervise ART at home, for patients initiating second line ART after failure of the first line. It is conducted in limited ACTG sites.

Two new protocols under this collaboration have been reviewed by the JCRC-IRB and are scheduled to commence soon:

- A5265: "A Phase III, Open-Label, Randomized, Assessment-Blinded Clinical Trial to Compare the Safety and efficacy of Topical Gentian Violet to that of Nystatin Oral Suspension for the treatment of Oropharyngeal Candidiasis in HIV-1 Infected participants in Non-US Settings"
- ACTG 5264: "A Randomised Evaluation of Antiretroviral Therapy alone or with Delayed Chemotherapy versus Antiretroviral Therapy with Immediate Adjunctive Chemotherapy for Treatment of Limited Stage AIDS-KS in Resource-Limited Settings (REACT-KS)"

MRC CTU

### **JCRC - MRC CTU Research Collaboration**

Since 2003, JCRC has enjoyed healthy collaborations with CTU MRC and has implemented several clinical trials, some of which are detailed below:

- The DART (Development of Antiretroviral Therapy for Africa) trial: This was a multi-site double-blind randomized clinical trial implemented between 2003 and 2009 at four clinical sites: JCRC Kampala in Uganda; Medical Research Council, Entebbe in Uganda; Infectious Diseases Institute, Kampala Uganda and at the University Teaching hospital, Harare, Zimbabwe. The study enrolled 3316 patients with a major objective of determining the best approach to roll-out antiretroviral in Africa. Results of this study have been published.
- The ARROW (Antiretroviral Research for Watoto) trial. Implementation of this clinical trial commenced in 2006 and is still ongoing. The objective of this multi-site randomized double-blind clinical trial is to discover the most optimal approach to rolling out antiretroviral therapy among children in Africa. The study is being implemented at JCRC Mengo, Baylor college, Kampala and University teaching hospital in Zambia. Three substudies have been conducted under this trial: The pharmacokinetics of liquid and scored tablets of ZDV, LMV and ABV and of twice and once daily dosing of ABV and LMV scored tablets of HIV infected African Children; Lypodystrophy Syndrome and Metabolic Abnormalities in African Children and Adolescents on Antiretroviral Therapy; and The Use of CD4% Computational Estimates as an Alternative Method for Pediatric Immune Monitoring.
- The CHAPAS-3 (Children with HIV in Africa - Pharmacokinetics and Acceptability / Adherence of Simple Antiretroviral Regimens) Trial. This Clinical trial commenced in 2010 and is being implemented among at three African sites: JCRC Kampala, Uganda; University Teaching Hospital, Lusaka Zambia and Baylor college of Medicine, Kampala Uganda.
- The CHAPAS-2 (A Randomised Trial to Determine the Pharmacokinetics and Acceptability of Ritonavir-boosted Lopinavir in Sprinkle and Tablet Formulation for Treatment of HIV Infected Children in Africa) Trial. This study is about to start enrolling at the paediatric clinic of JCRC.
- The PENTA 16 - Breather trial - A short cycle therapy (5 days on/2 days off) in young people with chronic HIV infection. This clinical trial is at the approvals stage, and will soon be enrolling at the JCRC Kampala site.
- The EARNEST (A Randomized Controlled Trial to Evaluate Options for Second-line Therapy in Patients Failing a First-line 2NRTI + NNRTI Regimen in Africa) Trial. This is a partnership between 8 African clinical research sites and 6 European organizations funded by the European and Developing Countries Clinical Trials Programme (EDCTP) and European national research funding agencies. Since Nov 2009, the network has been conducting a definitive clinical trial to identify the best antiretroviral therapy for HIV positive individuals who need to switch antiretroviral therapy in a resource-limited setting. The trial will enroll 1200 patients in 3 African countries - Malawi, Uganda and Zimbabwe. JCRC Kampala is the coordinating site for this trial.
- Aluvia Pharmacokinetic Protocol/Pharmacokinetics of Lopinavir/Ritonavir (Aluvia) during co-administration with EFV and NVP in Ugandan HIV-Infected Adult patients. This was conducted as a laboratory-based Pharmacokinetics study in 2007 at the JCRC Mengo. Results from this investigation have also been published.

CWRU

**JCRC - CWRU Research Collaboration**

Collaborations with the Case Western Reserve University (CWRU), Ohio USA and Makerere University College of Health Sciences (MAK CHS), commenced in 1998, and to date, a number of laboratory-based and clinical trials have been conducted under this partnership:

- Delaying HIV Disease Progression with Punctuated ARV Therapy in patients with TB in Uganda - the PART study. This commenced in 2004 to date. JCRC Kampala is acting as the reference laboratory for all samples from this study.
- A pilot study to evaluate Nucleic Acid Amplification test to predict relapse of TB and monitor the effectiveness of treatment (NAA). This study started in 2003 and is being implemented in collaboration with the MAK-CWRU collaboration. All samples from this study are being processed at the JCRC Kampala laboratory.
- A non-comparative study of Efficacy of a largely-intermittent regimen among patients who will not receive Isoniazid due to the presence of initial Isoniazid resistance or intolerance. This is a concluded study. Again, the JCRC research laboratory was instrumental in processing all laboratory samples from this study.
- An evaluation of the activity and tolerability of Moxifloxacin during the first two months of treatment for pulmonary TB: A double-blind, randomized, multicenter study by the TB trials Consortium (TBTC 027). This study is still on-going, since 2003. Patients' samples are processed at the JCRC research laboratory.
- Evaluation of a Moxifloxacin Based, Isoniazid-Sparing regimen for TB Treatment (TBTC Study 28). This study is still on-going, since 2005. Patients' samples are processed at the JCRC research laboratory.
- TBTC Study 29 "Evaluation of a Rifapentine-Containing Regimen for Intensive Phase Treatment of Pulmonary Tuberculosis. This study is still on-going, since 2008. Patients' samples are processed at the JCRC research laboratory.
- A Pilot Study to Evaluate Nucleic Acid Amplification and Other Tests to Predict Relapse of Tuberculosis and Monitor the Effectiveness of Treatment (NAA 2M). Commenced in 2008 to date. JCRC collaborates with the MAK-CWRU partnership to process patients' samples collected from the study.
- Determination of infection with multiple strains of mycobacterium TB in patients with pulmonary TB in Kampala, Uganda. This study commenced in 2008 and is now concluded. All samples were processed at the JCRC TB research laboratory.
- Renal Disease in HIV-Infected Ugandans (HIV-Associated Nephropathy). This was an observational investigation conducted among patients attending JCRC in 2007. Results are currently being published.

## OTHERS

### **JCRC - PharmAccess Foundation Research Collaboration**

Collaborations with the JCRC is also part of the PharmAccess foundation studies, which are investigating development of resistance to antiretroviral medication among African patients initiating antiretroviral therapy. Currently, three trials are being implemented in three JCRC Regional Centres of Excellence: Kampala, Mbale and Fort Portal under this collaboration:

- Creating an International Network on HIV Drug Resistance in Africa - Monitoring.
- Monitoring Antiretroviral Resistance in Children (MARCH).
- The Saliva study seeking to Validate Thin Layer Chromatography (TLC) for the Measurement of Nevirapine(NVP) in the Saliva of Ugandan Patients on NVP Containing Regimens .
- Field Evaluation of Affordable Resistance Testing in African Laboratory Settings (ARTA)

### **JCRC - University of San Fransco Research Collaboration**

Collaborations with the University of San Fransco, California. JCRC has also conducted several immunology laboratory-based studies in collaboration with USF, some of which are detailed below:

- Validation of CTL assays, for the evaluation of HIV-1 specific cellular responses in Ugandan patients. Implemented as a laboratory-based study at JCRC.
- Predictors of ART Outcome in HIV Positive Ugandan Children. An observational study conducted in preparation of an HIV vaccine study
- A Phase IB-Therapeutic Vaccine: Safety and Immunogenicity of LFn-P24C in HIV Infected Adult Ugandan Volunteers who undergo Monitored Treatment Interruption. A vaccine trial implemented between 2009 and 2010 at the JCRC immunology research laboratory.

### **JCRC - Ugandan Instututions collaborations**

JCRC has also enjoyed healthy collaborative interactions with several Ugandan NGOs, including the following:

- Academic Alliance.
- Catholic Relief Services
- Christian Reformed World Relief Committee in Katakwi.
- Collaboration with UPDF has also been strengthened.
- Compassion International has requested for JCRC partnership in its efforts to fight HIV among OVCs and other vulnerable groups.
- Hospice Uganda
- International HIV/AIDS Alliance
- Makerere University College of Health Sciences
- Makerere University John Hopkins University Project (MU-JHU).
- Mbarara University of Science and Technology.
- Medical Research Council (MRC)
- Mildmay and JCRC exchange trainees for hands on experience.
- NUMAT (Northern Uganda Malaria and Tuberculosis Programme)
- Plan International in Tororo district
- The AIDS Support Organization (TASO)
- The German Agency for Technical Cooperation (GTZ) is referring PMTCT clients to JCRC ART clinic in Fort Portal.
- Uganda Virus Research Institute
- Volunteer Efforts for Development Concerns (VEDCO), an agricultural CBO for food security, with 7 branches in Uganda.