

The **Combat Diseases of Poverty Consortium** brings together scientific, academic, NGO and private sector expertise to build educational and research capacities for combating diseases of poverty. The CDPC aims to network researchers across geographical borders and disciplines, in order to foster a scientific exchange and opportunities for new collaborations. The **CDPC newsletter** serves as a platform for the exchange of information between CDPC partners and other interested parties.

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Welcome to the eighth edition of the CDPC newsletter! It has been a particularly busy time for the CDPC over the last few months. Most importantly, we held an executive committee and CDPC Alumni meeting in Dar es Salaam in May. It was fantastic to see everyone again and to hear about the recent progress of our CDPC training alumns. We formally founded a CDPC alumni group in Dar, spear-headed by Dr. Judy Orikiiriza Tatwangire. Read more about the Dar meeting on page 2.

We also had the very sad news of the passing of the CDPC's African co-chair Dr Emmanuel Kafembe. We were shocked to learn of Emmanuel's death, and the tributes to him have flooded in from CDPC partners and associates. He will be sorely missed by all of us.

New CDPC trainees have started their training, at NUIM, at Makerere University and KEMRI. It will be worth keeping an eye on the CDPC website or facebook page in the coming weeks to learn of their adventures inside and outside the lab.

The newsletter aims to enhance and facilitate communication within the CDPC, so if you would like to see your research or recent publications featured, **please send me your contribution for the next newsletter by the 17th of September 2010!** -Dr. Martina Schröder



Dr. Emmanuel Kafwembe:

friend, esteemed colleague, humanitarian

The Combat Diseases of Poverty Consortium is deeply saddened by the untimely death of our good friend, colleague, founding partner and co-chair of the Consortium, Dr. Emmanuel Kafwembe. Emmanuel died on the 17th May 2010. Emmanuel was highly valued by everyone in the CDPC for his wisdom, knowledge, enthusiasm, and humanitarianism. He has been an important part of the successes we have enjoyed over the past couple of years, and we were looking forward to establishing even stronger links in Zambia in the future through his efforts. We in the CDPC are committed to Emmanuel's legacy through developing the important work that he has begun in helping young people to achieve their potential and to contributing to the development of a more equal World.

Here are some of the tributes to Emmanuel we received:

This is a great shock. Death has robbed us of a humble, pleasant, distinguished African scientist. May the lord rest his soul in everlasting peace. -Prof. Joseph Olobo

This is very disheartening news. What a loss to CDPC, Zambia and the region as whole. -Prof George Nasinyama

Dear Dr. Kafwembe - I know you have left us, but I also know that your vision and spirit will remain with us. Rest in Peace. - Dr Jared Maaka Siso

It is real sad to lose a wise and highly esteemed person like Kafwembe. - Kamugisha Gosibert

This is really tragic news. - Dr Michael Kibe

I am saddened by the news of Emmanuel Kafwembe's passing. We will indeed miss his wisdom at CDPC and pray that his soul will rest in eternal peace. - Prof Anne Katahoire

The CDPC meeting in Dar es Salaam

From the 10th to the 12th of May 2010 the CDPC held a meeting with the East African partners on the Executive committee in Dar es Salaam. In addition to the Executive committee meeting, we also held a small scientific conference, in which CDPC training alumnis also participated. CDPC partners and trainees presented their current and future research, which gave everybody a basis for discussing potential research collaborations over the next couple of days. This was the first time that the CDPC training alumnis took part in an official CDPC meeting. It was great to see the reunion of trainees who had shared their training period at NUIM, while other trainees met each other for the first time, but quickly established links and common research interests. To formalize this process and to generate a sustainable network of young East-African scientists, the CDPC recently started to establish a CDPC alumni group. In many ways, the meeting in Tanzania saw the launch of this alumni network, which Dr Judy Tatwangire, who trained with the CDPC in the autumn of 2009, will be fostering in future. Judy is outlining some of the discussions that took place about the best way forward for the Alumni network below. In addition to the scientific presentations and the Alumni meeting, the Executive committee met to discuss governance issues, which resulted in some proposed changes to working groups and the decision-making structures. It was proposed to form a small operational committee that would handle the day-to day business of the consortium. However, these changes will have to be approved formally by the full Executive committee. It was great to see everyone again in Tanzania, and I am looking forward to future meetings and work with the CDPC partners and alumnis. *Asante sana* to everyone who contributed to the success of our scientific conference and the discussions.

- Dr Martina Schroeder



The inaugural Alumni meeting

On the 10th of May 2010 I flew from Kigali to Dar es Salaam to attend a conference of the CDPC. The conference had an interactive format centered on the theme of capacity building. All CDPC attendees gave presentations on the research they were doing and what they were hoping to do. It was really enlightening to find out what the other members were doing and what was up their sleeves. The alumni also had a brainstorming session on how we could work together as far as research capacity building is concerned. We tried to identify research areas which would encourage all to get involved as we have wide-ranging professional specialties in our group. Our plan is to build up a research agenda in collaboration with the CDPC in the near future so that we can collectively look for funding. We would also like to have workshop trainings on the best way to carry out different types of research, proposal writing, scientific paper writing, budgeting and grants management and translating research into policy or policy development. Before we had to leave, we had a short time left for us to walk around to get a glimpse of the large city of Dar es Salaam. We had the unexpected opportunity to pay a visit to the residence of the President of the Republic of Tanzania, most of you know by now what transpired... I flew via Nairobi with my Kenyan brothers and we still had a lot to share about building and supporting the CDPC. We agreed on maintaining frequent communication especially using email and the CDPC alumni forum on Facebook.



-Provided by Dr Judy Tatwangire (pictured here with John Bosco Kalule, Makerere University). Judy is Head of the Department of Pediatrics and Child Health at Kanombe Military Hospital in Kigali and trained with the CDPC in autumn 2009.

Malaria awareness week in NUIM

You might not associate the childhood game of ‘tag’ with a dreaded disease that afflicts millions of people in the developing world. But as part of NUI Maynooth’s annual ‘Malaria Week,’ Maynooth students seek to generate curiosity about malaria and its social impact through a campus-wide game of ‘malaria tag.’ Students gamely costumed as *anopheles* mosquitoes (replete with bug eyes, wings, and insect-legs) act as ‘malaria vectors’ for a week -- ‘tagging’ unsuspecting Maynooth students and generating awareness about the disease amongst an Irish public that might not think too often about it. The game includes recourse to a ‘medic,’ who distributes symbolic medicines that might be used to ward off infection. ‘Malaria tag’ is only one part of a weeklong series of events conducted by the CDPC to educate Irish students, and the Irish public, about the latest malaria science, coinciding with World Malaria Day on the 25th of April. This year, a lecture on the politics of public-private partnership for malaria control was scheduled (but had to be cancelled due to the volcanic ash cloud hovering over Europe), a film on new malaria drugs was screened, and the Literary and Debating Society held a debate on the problems associated with funding ‘disease-specific’ (so-called ‘stovepiped’) health interventions in developing countries. NUIM Malaria Week is organized and led by the Anthropology Society in association with the Biology Society as well as the CDPC. Listen for the buzz again next spring.

-provided by Dr Thomas Strong



The mosquitoes: Ting Ting Shum, Tom Keegan, Dwaine Martin, Alex O’Connell, John Whelan and Thomas Strong



Mosquitoes looking for their next victim (aka person to be educated about Malaria)

Neema Ndoboka’s training experience in Maynooth

The Combat Disease of Poverty Consortium (CDPC) program offered me a training fellowship between September and December 2009. On my arrival in Ireland I admired beautiful scenery and the green and clean environment. I was warmly welcomed and felt at home. I will always be grateful to the CDPC for that opportunity.

Dr. Tom Strong was assigned to supervise me. Through his supervision I managed to conduct detailed readings in development and anthropology. This included focused work on the history of neoliberal ideology in different global settings, problems faced in centralized planning of development initiatives, Africa’s place in contemporary critiques of globalization, and cultural identities within a global hierarchy of value. The readings and discussions Tom and I conducted were so useful to me. They helped me to think critically, broaden and enrich my understanding on development issues. I have come back in my country with a new perspective on development challenges. Anytime given a chance to contribute in planning for development program I will advise the application of people’s knowledge and intensive study before introducing a new development program in any community.

Joseph Clowry introduced me to the school outreach program. Under his guidance I managed to conduct several workshops on HIV/AIDS to secondary school students. I also learnt how the Irish government impart in their youth the spirit of helping the underprivileged. I have started applying this at my family level by encouraging my children being more considerate to the underprivileged.

Finally Dr. Strong, Dr. Fiona Larkan, Dr. Elina Oinas (from Turku University – Finland) and I conducted a workshop to NUIM MA students about Anthropological Perspectives on Gender, Health and Development.

- provided by Neema Ndoboka

Neema Ndoboka works for the Tanzanian government ministry of Community Development, Gender and Children. She trained with the CDPC in the autumn of 2009.



INFANT MORTALITY AND MORBIDITY IN EAST AFRICA AND THE ROLE OF DIARRHEAL ETIOLOGIES

- provided by James Mbora Wainana

James is in the final stages of his MSc(on Rickettsiae) in John Waitumbi's lab and wants to develop a PhD proposal on enteric pathogens, with the ultimate aim of generating a genomic database of the various enteric pathogens in humans (and in particular children) found in the different regions of Kenya. If you would like to find out more, feel free to contact James (jwmbora@yahoo.com).

One out of 12 children born in 2001 died before their fifth birthday. This represents an annual total of 10.8 million childhood deaths, about 70% of which occur in infancy (Parashar *et al.*, 2003). More than a third of infant mortality in children under the age of 5 years is caused by diarrhea (Vargas *et al.*, 2004). There are several factors attributed to persistent diarrhea in infants: Obviously their hygiene habits are not well developed at this stage, however other factors include insufficient hand-washing by child's caretaker, presence of toys and baby bottles in unhygienic conditions and poor attention to fecal disposal. The main etiologies of the diarrhea include a wide range of bacteria (i.e. *Campylobacter jejuni*, *Escherichia coli*, *Salmonella spp.*, *Vibrio cholerae*, *Yersinia enterocolitica*, and *Aeromonas spp.*), enteroparasites (*Giardia spp.*, *Cryptosporidium spp.*, and *Entamoeba histolytica*), and viruses (*adenovirus*, *Norwalk virus*, and *rotavirus*). The most important of these etiologies especially in East Africa are *Giardia* which is an ubiquitous enteric protozoan affecting humans and a range of domestic and wild mammals (Thompson *et al.*, 2000); *Cryptosporidium spp.*, one of the most common enteric parasites in cases of *diarrhea* in children; *Entamoeba histolytica*, a pathogenic protozoa parasite causing amoebic colitis, dysentery and liver abscesses in humans; and *Rotavirus*, an enteric virus that causes *diarrhea* accompanied by sudden vomiting and fever in 30%-50% of the cases (WHO, 2003). *Escherichia coli*, which exists in various virulent forms, is the most commonly detected enteric pathogens causing 50% of all *diarrhea* cases. Most of these enteric pathogens are present within domestic animals; however the prevalence of the zoonotic genotypes and their frequency of transmission need to be determined and well understood, especially in Kenya. Most enteric studies in East Africa have focused on the prevalence and seasonal variations of enteric pathogens within infants (children under the age 5 years). There has been little focus on the molecular epidemiology of these enteric pathogens and the probable genetic variation across geographical regions. This can be attributed to the fact that most *diarrhea* etiologies are diagnosed by microbiology cultures and light microscopy. Microscopic examination is applicable in rural settings, but it is impossible to carry out genomic subtyping and (in some cases) to distinguish between pathogenic and non-pathogenic enteric pathogens (i.e. pathogenic *Entamoeba histolytica* and non-pathogenic *Entamoeba dispar*). However, the correct diagnosis is important in order to apply rational therapy and implement correct control measures. This therefore calls for the development of more sensitive and specific diagnostic methods. However, simple and effective control measures should also be initiated, including education of mothers and caretakers on proper fecal disposal methods, hand washing before food preparations and feeding of children, and avoidance of non-hygiene use of baby bottles. There should also be controlled interaction between the domestic animals and children, especially in areas with high animal densities (i.e nomadic areas). In cases where children are suffering from diarrhea, domestic animals within the same households need to be examined to determine possibilities of similar enteric pathogens, and chemotherapy initiated in both domestic animals and children. This reduces the recurrence of *diarrhea* incidences in the households.

Update on the Centre for Global Development through Education

Spring has been a busy term for the Centre for Global Development through Education (CGDE) which is based in Mary Immaculate College, Limerick. CGDE's second seminar series came to a close in March, and the third Seminar Series, entitled 'Education in the Developing World: A Closer Look at Africa and Asia', will start in the autumn 2010. In April, teams representing many of CGDE's partner Irish Higher Education Institutions (HEIs) travelled to Uganda and Lesotho to take part in Teacher Educator Exchange Programmes and four research projects, two in Uganda and two in Lesotho. On the 7th May, the Director of CGDE, Dr. Rosarii Griffin, attended a talk entitled 'Managing economies in turbulent times' given by the Minister of Finance from Lesotho. Dr Griffin also gave the keynote speech with Prof Bob Moon (TESSA) and Richard Arden (DFiD) at the *Teacher Education, Management and Professionalisation Reform Summit* which was held in Kigali, Uganda, between the 8th and 9th of March 2010.

For further questions on the CGDE, please contact Dr Rosarii Griffin (rosarii.griffin@mic.ul.ie).