



FONDAZIONE  
IVO DE CARNERI ONLUS

For the promotion of control strategies against  
parasitic diseases in developing countries  
and to encourage research in parasitology



Ministry of Health of Zanzibar



## **“Facing the Challenges of Global Health”** **An Advanced Residential Course on Poverty-Related and Neglected Tropical Diseases**



The course will be held at  
*Public Health Laboratory*  
*“Ivo de Carneri”,*  
*Pemba Island*  
(Zanzibar, United Republic of  
Tanzania)

**July 17th – August 4th 2017**



## The Target

**The Course is addressed to professionals active or interested in public health research and training, with diverse cultural and scientific background and competence**

## The Goal

**To acquire a solid knowledge and a critical understanding on PR&NTD, and the capability to apply knowledge and understanding to meet the challenge of their control**

## Main Features of the Course

- Based at the Public Health Laboratory “Ivo de Carneri” (PHL-IdC), an established WHO Collaborating Centre on Neglected Tropical Diseases, it provides first-hand experience on research and control of Poverty-Related and Neglected Tropical Diseases (PR&NTD).
- Case studies are given adequate time in the Course programme, with a special emphasis on those where local experience and expertise are available.
- To reduce the time dedicated to introductory lectures, the participants are expected to get pre-informed, thanks to the provision of useful material (papers, moocs, links...), identified in advance by the teaching faculty.
- The course follows a challenge-based approach, dealing with each issue first under a general perspective (e.g. the emergence and diffusion of insecticide resistance) and then focusing on the specific context, to examine in detail strategies, tools and methods (e.g. the Pemba, Zanzibar case), and critically assessing what can be exported and/or scaled-up and what cannot.
- The gender approach will be cross-sectionally considered among all the health challenges dealt with in the Course programme. Similarly, the ‘traditional medicine’ (ranging from the context specific traditional concepts of illness/disease, prevention/contagion, the rupture of universal harmony and the restoration of wellbeing through traditional healing practices, to the practices - assistance and ritual blessings - of traditional midwives during home delivery to recourse to herbalists, healers, diviners etc.) will not be the specific subject of a separate session, being rather considered in relation to each challenge.

- Among the strengths of the PHL-IdC is that, being part of the Zanzibar Health System, it counts on long standing collaborations with key health system policy makers and managers of the control programmes, who are involved into the teaching faculty.
- The training modules are entrusted to an International, Interdisciplinary and Inter-sectorial (triple I) teaching faculty, which may include e.g. social scientists, bio-medical scientists, gender experts, traditional medicine specialists, academics and managers of control programmes, who will all be responsible for the complete series of teaching events of each module and whenever possible will participate to its whole duration (in general, one week).
- To facilitate both, the teachers to prepare the training material and the participants to self-evaluate their learning progress, the training objectives for each topic of the Course programme are defined on the basis of the Dublin descriptors<sup>1</sup>:
  - D1 Knowledge and understanding
  - D2 Ability to apply knowledge and understanding
  - D3 Judgement
  - D4 Communication skills
  - D5 Learning skills
- Training objectives are defined in terms of expected results: *“At the end of the course the student should be capable to ..... “*
- The teaching methods are balanced between lectures, plenary discussions, field visits (i.e. relatively ‘passive’ learning) and teamwork, laboratory practices, reporting and presentation of team work (i.e. active, creative learning). Overall, lectures and plenary discussions do not take more than 50% of the course time. Active learning is expected to strengthen D2.
- For the active component of the learning process, participants work in small groups of 4-5 persons on a specific challenge (e.g. how to assure that people use properly LLIN in a situation of reduced mosquito nuisance?), with the task of designing possible interventions and behavioural change tools and then present their work in plenary, thus strengthening D1- D5.
- Definition of take home messages is known to help learners to critically reflect on the lectures, knowledge and understanding acquired; the question *“what were the most important take home messages for you?”* is addressed at the end of the day or the next morning before starting the subsequent arguments.

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<sup>1</sup> See e.g. [http://ec.europa.eu/education/ects/users-guide/glossary\\_en.htm](http://ec.europa.eu/education/ects/users-guide/glossary_en.htm)

## Why a course on PR&NTD and their control?

Neglected tropical diseases (NTD) are a diverse group of 18 infectious diseases<sup>2</sup>, caused by protozoa, helminths, viruses and bacteria that prevail in tropical and subtropical conditions in 149 countries and affect more than one billion people, causing significant health and financial burdens [1]. They also are poverty-related diseases (PRD), since they mainly affect populations living in poverty, without adequate sanitation and in close contact with infectious vectors and domestic animals and livestock [2]. This group of diseases has been overlooked because they mainly affect the least developed countries and because of the emphasis placed on decreasing the prevalence of the 3 major PRD, namely HIV/AIDS, tuberculosis, and malaria [3]. Indeed, these 3 diseases and NTD are most frequently co-endemic: an individual may be infected with more than one NTD in addition to HIV, tuberculosis, and/or malaria. For example, an NTD like schistosomiasis can make women and girls more susceptible to HIV infection and can subtract micronutrients from children to stunt their growth [4].

NTD are disablers rather than killers and their impact on health systems, beyond the suffering of the individual, is huge. They severely affect economies and communities, hampering the reduction of poverty and the development of countries [5]. The control and elimination of NTD would not only reduce the overall disease burden in least developed countries, but would also improve maternal health, reduce childhood mortality, reduce malnutrition, improve school attendance, and help women empowerment [6]. Most NTD are treatable and preventable via the control of their vectors (mainly insects), improved water quality and sanitation, and the efficient delivery of drug treatments [7]. It is not to be forget that many times the incidence of NTD and PRD is accelerated due to a lack in risk perception and prevention on the side of the local population, crucially determined by context-specific cultural ideas and crystalized *habitus* in healing practices which sometimes can facilitate, rather than reduce transmission [8-9-10]. Conscious of this cultural dynamics, Tanzanian authorities and researchers, expressed their adherence to the vision shared by the Pan African Anthropological Association, that an interdisciplinary approach, including medical, cultural and social anthropology in Public Health programmes is definitely pivotal [11-12].

The first WHO Report on NTD, published in 2010, brought these diseases to the attention of global community [12]. The WHO then released a follow-up report in 2012, closely followed by the 2012 “London Declaration” advocating the control, eradication, or elimination of 10 NTD (lymphatic filariasis, trachoma, soil-transmitted helminths, onchocerciasis, schistosomiasis, leprosy, guinea worm, visceral leishmaniasis, Chagas disease, and human African trypanosomiasis) by 2020 [13]. Since the London Declaration, some successes indicate that the objective is achievable: Colombia recently became the first country in the world to eradicate onchocerciasis and Niger, Nigeria, and the Ivory Coast have also recently eradicated Guinea worm [14]. However, there is still a long way to go: only 10% of global

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<sup>2</sup> Buruli ulcer, Chagas disease, Dengue and Chikungunya, Dracunculiasis (guinea-worm disease), Echinococcosis, Food-borne trematodiasis, Human African trypanosomiasis (sleeping sickness), Leishmaniasis, Leprosy, Lymphatic filariasis, Onchocerciasis (river blindness), Rabies, Scabies, Schistosomiasis, Soil-transmitted helminthiasis, Taeniasis/Cysticercosis, Trachoma, Yaws (Endemic treponematoses)

health research is devoted to NTD, that account for 90% of the global disease burden (the so-called '10/90 Gap') [15].

Today, NTD are particularly widespread among the poor in sub-Saharan Africa, with soil-transmitted helminth infections, schistosomiasis, lymphatic filariasis, trachoma, and onchocerciasis, together affecting more than 500 million people [16]. Because of their adverse effects on child development, pregnancy outcome, and economy, NTD represent a major reason why people in sub-Saharan Africa cannot escape poverty [14].

The United Republic of Tanzania is endemic for at least 7 NTD (lymphatic filariasis, schistosomiasis, soil-transmitted helminthiasis, onchocerciasis, trachoma, rabies, trypanosomiasis) [17]. These diseases rank among the major health concerns also in the Islands of the Zanzibar Archipelago (Pemba included), as highlighted in the "Zanzibar Strategy for Growth and Reduction of Poverty (ZSGRP II) 2010 – 2015" [18]. Consequently, the control and elimination of transmission of NTD prevailing in Zanzibar by 2018 is one of the objectives of the "Zanzibar Health Sector Strategic Plan III 2013/14-2018/19" [19], which shows the Zanzibari health sector commitment in tackling NTD.

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## Training Objectives of the Course<sup>3</sup>

At the end of the course the participant has improved his/her capability in:

### D1 - KNOWLEDGE AND UNDERSTANDING

- The participant knowledge about the Course topics has shown a remarkable increase during the 3 weeks of the Course duration, as evaluated by the quality of the reports produced
- The participant contribution to the discussions, in terms of quality and quantity, demonstrated that the notions passed during the lectures have been properly understood

### D2 - ABILITY TO APPLY KNOWLEDGE AND UNDERSTANDING

- The real-life simulation exercises, the team work and the role-playing games demonstrated that the participant has become able to translate the knowledge into practice for problem solving

### D3 – JUDGEMENT

- The participant has acquired the ability of critically assessing the scientific validity of data from various information sources
- The participant has become able to formulate an independent judgement on the reliability of data from monitoring and surveillance activities of control programmes

### D4 - COMMUNICATION SKILLS

- The participant is now able to interact with health specialists of various sectors and discuss about PR&NTD and their control using the appropriate language so to insure unequivocal mutual understanding
- The participant can easily interact and work in team with other trainees to produce roadmaps, proposals, action plans to meet PR&NTD challenges.

### D5 - LEARNING SKILLS

- The participant has developed/improved the skills needed to gather information and references through the web search engines, to identify the most appropriate websites as sources of continuous, disciplinary and methodological up-date.

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<sup>3</sup>A similar scheme will be introduced for each topic of the course

## The Course at a glance

**Scientific Coordinator of the course:** Prof. Fulvio Esposito, Professor (emeritus) of Parasitology, Senior Research Policy Adviser at the Italian Ministry for Education, University and Research (MIUR), Member of the European Research Area Committee and of the Steering Group on Human Resources and Mobility (European Commission, DG-RTD), mail to [fulvio.esposito@miur.it](mailto:fulvio.esposito@miur.it)

**Scientific and Organizing Secretariat:** Dr Francesca Moretti, Ivo de Carneri Foundation (Milan), mail to [f.moretti@fondazioneocarneri.it](mailto:f.moretti@fondazioneocarneri.it)

**Administrative Secretariat:** Dr Sara Lamperti, Ivo de Carneri Foundation (Milan), mail to [s.lamperti@fondazioneocarneri.it](mailto:s.lamperti@fondazioneocarneri.it)

**Organizing Institutions:** Ivo de Carneri Foundation, Milan (Italy) and Public Health Laboratory “Ivo de Carneri”, Pemba, Zanzibar (*United Republic of Tanzania*)

**Local Counterpart:** Ministry of Health of Zanzibar

**Where:** Pemba, Zanzibar (*United Republic of Tanzania*)

**When:** July 17th – August 4th 2017

### Summary Content of the Course:

First Week	Second Week	Third Week
Essential components of the ‘toolkit’ for PR&NTD control: Social Sciences and Health Data Management	From global to local: Experiences from ongoing programmes for PR&NTD control	Adopting a holistic approach to PR&NTD control

### Participants

For the sake of training effectiveness and to guarantee the full and active participation to the course activities, the number of participants is limited to 20. Out of this number, 10 places are reserved to African participants (two of which to Zanzibari participants) and 10 to European participants (two of which to Italian participants)

### Qualifications required for admission

- University Degree
- Good knowledge of written and spoken English, with excellent level of listening and comprehension.

**Registration Fee:** EUR 1,800

**Registration Fee includes:** Course Participation and Full Board Accommodation.

**Registration Fee does not include:** Travel expenses to/from Pemba, Visa, Airport taxes, Insurance, Personal expenses.



### **Scholarships**

A number of scholarships to cover the Registration Fee will be offered to African applicants with an excellent curriculum.

### **Application**

Applications are accepted until the **31st of March 2017 EOB**. Candidates must send, **attached to an e-mail message to [f.moretti@fondazioneDecarneri.it](mailto:f.moretti@fondazioneDecarneri.it)** 1) the **Application Form** to be downloaded from the website [www.fondazioneDecarneri.it](http://www.fondazioneDecarneri.it), 2) an updated **Curriculum Vitae**, 3) a **Motivational Letter**, 4) a copy of the **Degree Certificate** and 5) a **Copy of Passport**.

All applicants will be informed upon reception of their documents.

Candidates will be shortlisted based on the documents provided (CV, Motivational Letter, Degree Certificate). Shortlisted candidates will be interviewed (Skype or similar) for an in-depth, final evaluation.

All candidates will be informed about the result of their application.

**For any information regarding the course contact, please, Dr Francesca Moretti at [f.moretti@fondazioneDecarneri.it](mailto:f.moretti@fondazioneDecarneri.it)**

## Preliminary Programme of the Course

<b>FIRST WEEK</b>	
<b>Theme of the week</b>	<b>Essential components of the 'toolkit' for PR&amp;NTD control: Social Sciences and Health Data Management</b>
<b>MONDAY</b>	Introduction to the course
<b>TUESDAY</b>	Social Science and Humanities and PRD & NTD Control
<b>WEDNESDAY</b>	Control of PR&NTD and Human Development
<b>THURSDAY</b>	The role of ICT in the management of PR&NTD control activities and/or programmes: basic rules and critical issues
<b>FRIDAY</b>	Wrap up of the topics discussed during the week: the role of social sciences and humanities in the control of PRD and PR&NTD; the importance of an effective and efficient open data management

<b>SECOND WEEK</b>	
<b>Theme of the week</b>	<b>From global to local: Experiences from ongoing programmes for PR&amp;NTD control</b>
<b>MONDAY</b>	Mosquito-borne PR&NTD
<b>TUESDAY</b>	Soil transmitted helminths and schistosomiasis
<b>WEDNESDAY</b>	Water-borne bacterial and parasitic diseases
<b>THURSDAY</b>	Soil- and water-transmitted parasites control: going to the field
<b>FRIDAY</b>	Wrap up of the topics discussed during the week: vector-, water- and soil-transmitted PRD and PR&NTD (community perceptions, attitudes and practices; challenges for programmes of community health education and behaviour change)

<b>THIRD WEEK</b>	
<b>Theme of the week</b>	<b>Adopting a holistic approach to PR&amp;NTD control</b>
<b>MONDAY</b>	<b>Promoting and safeguarding mother &amp; child well being</b>
<b>TUESDAY</b>	<b>The interaction between nutrition, PR&amp;NTD (with special emphasis on intestinal infections) and health, from infancy to adulthood</b>
<b>WEDNESDAY</b>	<b>Pharmacological control of parasitic diseases, modern drugs and traditional remedies: strengths and weaknesses, risks and opportunities</b>
<b>THURSDAY</b>	<b>PR&amp;NTD management information systems; innovative, integrated approaches to collect, analyse and store open data</b>
<b>FRIDAY</b>	<b>Wrap up of the topics discussed during the week: PR&amp;NTD, health and nutrition; drugs- (and remedies)-related challenges for the control of PR&amp;NTD; the open data challenge</b>

## The Organisers

### *The Ivo de Carneri Foundation*

The Ivo de Carneri Foundation was founded in 1994 by the family, colleagues and students of Professor Ivo de Carneri in memory of his life and work. Professor De Carneri contributed significantly to the fight against parasitic and infectious diseases through scientific research, field interventions and training of young researchers.

The mission of the Ivo de Carneri Foundation is “to promote control strategies against parasitic diseases in developing countries and to encourage research in parasitology”.

One of the Foundation’s first priorities was to create a public health laboratory on Pemba Island (Zanzibar) to provide better support for parasitic diseases’ control programmes in the area. This was an idea of Professor Ivo de Carneri conceived in 1988 while on a mission to Pemba for the Italian Ministry of Foreign Affairs to assess the national schistosomiasis control programme. The Public Health Laboratory was then realized after Professor de Carneri passed away and officially opened on 12 June 2000. In response to the local Ministry of Health’s wishes it was named Public Health Laboratory “Ivo de Carneri” (PHL-IdC).

### *Public Health Laboratory – Ivo de Carneri (PHL-IdC)*

PHL-IdC is a recognized Institution within the Ministry of Health of Zanzibar that implements research studies related to national and global health priorities. The main activities of the PHL-IdC are: operational research, monitoring interventions for public health priorities and training for local and international health personnel and scientists.

Since its foundation, PHL-IdC has attained considerable achievements, establishing Zanzibar as a pioneering location for developing global strategies for control of parasitic diseases. Successful public health interventions, especially in the area of NTD, led to the recognition of PHL-IdC as WHO Collaborating Centre.

PHL-IdC collaborates with national and international research institutions carrying out scientific research and training on Poverty Related and Neglected Tropical Diseases (PR&NTD). Important research areas are: schistosomiasis, soil and water transmitted parasitic infections, lymphatic filariasis, malaria, tuberculosis, diarrhoeal diseases, malnutrition and related diseases.

Further information can be found at the Ivo de Carneri Foundation website: [www.fondazioneocarneri.org](http://www.fondazioneocarneri.org)

## The Venue



The course venue is the Public Health Laboratory “Ivo de Carneri” (PHL-IdC) in Pemba Island (Zanzibar, United Republic of Tanzania), an advanced research performing organisation. The main building of 800 m<sup>2</sup>, is divided into several sections: Laboratory (Parasitology, Bacteriology, Virology), Training and Administration. The conference room can accommodate up to 50 people and is equipped with training facilities. Wireless internet service is available and h24 electricity is guaranteed by solar panels and a power supply generator. A canteen takes care of the participants with local food. Participants will be accommodated in the PHL-IdC guest houses 2 km away from the PHL-IdC premises. A shuttle service is guaranteed by the local staff.

## General information

### Pemba Data

**Population:** 406.808 (2012 census)

**Surface:** 988 km<sup>2</sup> (381 sq mi)

**Time:** GMT + 3

**Languages:** Kiswahili and English

**Religion:** More than 90% of Zanzibar population are Muslim

**Money:** Tanzanian Schilling TZS

### General Information to enter the country

**Passport:** a valid passport is needed with validity of at least 6 months since the date of entry in the country.

**Entry Visa:** need of a TOURIST VISA which can be obtained at Tanzanian Consulate in the country of origin.

Zanzibar is a country with Islamic traditions: to respect local habits it is recommended not to drink alcoholic beverages and dress up with long trousers or skirts and with shoulders covered.

### Health Information

Before departure is advisable to consult a travel doctor for vaccinations and prophylaxis. No vaccinations are required (yellow fever vaccination is required if coming from endemic areas).

It is advisable to stipulate an health insurance.

In addition, it is recommended to:

- drink bottled water or soft drinks without ice;
- treat the water for alimentary use (boil for 20 minutes and/or filter it);
- avoid eating raw vegetables and sea food;
- promptly consult a physician if you have symptoms as, e.g., fever, diarrhoea, vomiting.