

Mission, organization and achievements

The International Network for Cancer Treatment and Research (INCTR) is an international nongovernmental organization (NGO) that was established to address a neglected global health problem – the ever increasing burden of cancer in developing countries. The founder members of INCTR included the former Institut Pasteur in Brussels and the International Union Against Cancer, now known as the Union for International Cancer Control (UICC). The National Cancer Institute in the United States provided financial and technical support and the organization began its activities in 2000. INCTR's headquarters are located in Brussels and it has offices and branches throughout the world. INCTR became an NGO in Official Relations with the World Health Organization (WHO) in January 2010.

The need for INCTR: Cancer in developing countries

Approximately 85% of the world's people live in low- or middle-income countries (LMICs). In 2012, Globocan estimated that there were approximately 14.1 million new cases of cancer and 8.2 million deaths from cancer in the world, with 65% of deaths occurring in LMIC. The number of cancer cases continues to rise across the world, but much faster in LMICs because development brings decreased mortality and with their higher fertility rates, this rapidly translates into population growth and increased numbers of patients with common diseases. The birth rate subsequently declines, although population growth continues since people live longer. Eventually birth and death rates stabilize at a much lower level of both than was the case prior to development. These demographic changes are accompanied by the adoption of unhealthy lifestyles practiced in high-income countries, particularly smoking, and increasingly, overeating and a sedentary lifestyle.

Resources of all kinds for treating cancer are limited in LMICs, such that patients who develop cancer frequently lack access to a facility capable of making an accurate diagnosis and providing appropriate therapy. There is a lack of drugs, a paucity of radiation therapy facilities and very few cancer specialists or other health care workers who are needed to effectively care for cancer patients. Diagnosis may be so delayed that there is little that can be done even if the patient does finally reach a facility competent to care for them. Terminal care is not widely available, and regulations and attitudes are still largely directed towards preventing the misuse of opioids rather than relieving the pain of dying patients, such that most patients die without symptomatic relief or little or no mental or spiritual comfort. It is estimated, for example, that less than 1% of patients who need palliative care in India receive it.

INCTR is unique in that it focuses only on the developing world. It also works directly with its collaborators, sometimes

visiting them many times in order to achieve its goal of helping to build sustainable capacity in LMICs in order to assist these countries in cancer prevention, early diagnosis, treatment and palliative care. It is not an advocacy organization, and all clinical projects are coordinated by a health professional. Its output is information collected in the field, lives saved by cancer prevention or treatment, and improved quality of palliative care.

Who INCTR works with

INCTR utilizes healthcare professionals familiar with the problems of developing countries to enable it to achieve its goals. See Box 1.

INCTR develops local capacity within LMICs by training healthcare professionals to establish “centres of excellence” in the delivery of feasible, affordable and effective care, including palliative care, that is considered “best practice” so that they, in turn, can train others within their country or region.

INCTR works through its branches in implementing various programmes and projects conducted in collaboration with partner institutions in developing countries and monitored by field visits.

INCTR integrates research into its programmes by documenting and evaluating actual data (rather than projected economic or health benefits, for example). Such research may include a wide range of projects, from cancer education for the general public to developing treatment outcomes, including palliative care. This, in turn, enables healthcare professionals working in LMICs to become familiar with the most pressing issues and to develop plans to improve efficiency and reduce cost. Although clearly many countries have limited health workforces and quantitation of such workforces can be valuable in terms of planning for the future, it realizes that many cancer plans have little impact because of the limited resources and great difficulty in expanding interventions to very poor populations which cannot “purchase” their own healthcare needs and which have little or no chance of expanding their present resources. Having a cancer plan is not enough. Successful cancer plans require knowledge and a budget in addition to educated health professionals.

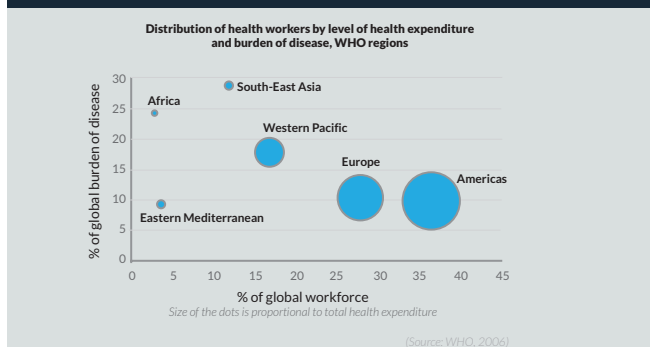
INCTR's structure

INCTR has consultants and volunteers dedicated to the

INCTR'S GOALS – MAKING A DIFFERENCE

- ➔ To reduce the incidence of cancer in resource-limited countries through public and professional education about the causes of cancer and how to use this information in cancer prevention
- ➔ To detect cancer early through public and professional education about the early signs of cancer and what to do if they appear
- ➔ To diagnose cancer accurately through pathology training and, where important and feasible, imaging techniques

Figure 1: Disease burden and resources



accomplishment of its goals. Although its headquarters are located in Brussels, it has branches in the United States, Canada, Brazil, United Kingdom, France, Egypt, Nepal and India. Branches are legally-established NGOs that contribute to and conduct programmes and projects that are relevant to INCTR's mission.

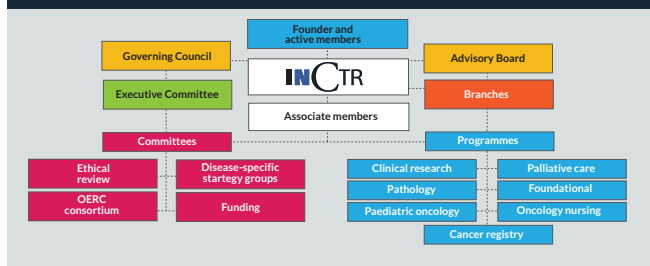
Resource development, administration and programmes (e.g., adult oncology, paediatric oncology, cancer registries, pathology and palliative care) are supervised by an Executive Committee or directly by the branches. The Executive Committee is responsible to INCTR's Governing Council. Programmes and projects are developed with the participation, input and advice of various INCTR committees and strategy groups, as well as independent scientific advisers. Programmes and projects are conducted in collaboration with partner institutions involved with cancer research, diagnosis and treatment, including palliative care and education in countries with limited resources.

Individuals, institutions or organizations often choose to serve as Associate Members who contribute financially to the work of INCTR.

What does INCTR do?

INCTR addresses all aspects of cancer control with the overall goal of lessening the morbidity and mortality from cancer. It emphasizes training and education of healthcare professionals in LMICs to ensure that "best practices" are instilled in cancer prevention, early diagnosis, treatment and palliative care. Research is an integral part of its work with its partners in LMICs in order to accurately document the cancer burden – including the types of cancer and extent of disease, the outcomes of prevention and early detection campaigns and the efficacy, toxicity and cost of treatment delivered. It also emphasizes public awareness

Figure 1: Disease burden and resources



STRATEGIES

- ➔ To build capacity for cancer prevention, diagnosis, treatment and palliation through professional education and training
- ➔ To conduct, or provide materials for the conduct of educational campaigns for the public and primary care doctors about the causes of cancer and living a healthier life
- ➔ To work with experts in-country to conduct locally relevant research on cancer control

of cancer, which is an essential component of early diagnosis. INCTR has a variety of programmes that are carried out in close collaboration with its branches as well as its partner institutions in developing countries. INCTR's current programmes include:

- ➔ adult oncology;
- ➔ clinical research;
- ➔ palliative care;
- ➔ pathology;
- ➔ cancer registry;
- ➔ foundational;
- ➔ paediatric oncology;

INCTR's projects and achievements

Each INCTR programme has goals and objectives in line with the overall mission of the organization, divided into separate projects. Many projects have been conducted or are on-going and include:

Adult oncology

- ➔ Prevention, early diagnosis, and treatment of selected cancers in poor urban areas and in rural and tribal regions in the state of Rajasthan in India.
- ➔ Cervical cancer screening using visual inspection in Nepal and Tanzania.
- ➔ Training of Bolivian healthcare professionals in cervical cancer screening by Peruvian experts.
- ➔ HPV vaccination of young girls in Nepal.

Cancer registries

- ➔ Establishing an East African Registry Network (EARN) that subsequently became the African Cancer Registry Network (AFCRN). As part of the Global Initiative for Cancer Registry Development in LMICs, the Network acts as a consortium to provide a "regional hub" for cancer registries in sub-Saharan Africa. The AFCRN is supporting or assisting the development of 22 cancer registries in the region, including English- and French-speaking countries.
- ➔ Provision of training courses in cancer registration and the use of CanReg 5.
- ➔ Participation in collaborative international research.
- ➔ Visits of INCTR consultants to the Kingdom of Saudi Arabia to review cancer registration procedures and data quality and to Uganda to offer advice on setting up a cancer registry.

Clinical research

- ➔ The treatment and characterization of acute Lymphoblastic Leukemia in children, adolescents and young adults in India –

over 450 patients have been treated by four institutions.

- ➔ The treatment and characterization of Burkitt Lymphoma – over 750 patients have been treated by seven centres in Nigeria, Democratic Republic of Congo, Uganda, Kenya and Tanzania. Survival is greater than 60% at 5 years.
- ➔ Understanding problems faced by parents of children with Retinoblastoma before treatment – 435 parents interviewed from institutions in 10 countries in Latin America, Asia and Africa.
- ➔ Situational analysis of breast cancer – 8,800 medical records of women treated for breast cancer in four institutions in Peru, Egypt, Pakistan and India.
- ➔ Studies carried out in Brazil, India, Pakistan and Turkey to determine delays in diagnosing and treating nasopharyngeal carcinoma and assess the role of consanguinity and familial history in this cancer.
 - ➔ A new initiative to characterize the lymphoproliferative diseases in adults in Senegal with initiated in partnership with Universities in Dakar.
 - ➔ Development of a pathological and radiological review for Brazilian patients with medulloblastoma in partnership with the Brazilian Society of Paediatric Oncology.

Foundational

- ➔ Accreditation Programme in the conduct of clinical trials in institutions in Brazil.
- ➔ Educating school children about cancer in Nepal.
- ➔ Evidence-based development through preparation of bibliographies of published literature from developing countries relevant to breast cancer and selected cancers in Egypt.
- ➔ Open Educational Resources for Cancer available online.
- ➔ Thematic workshops to discuss challenges in cancer control in East Africa.
- ➔ Webinars for e-learning.
- ➔ Publication of five annual editions of *Cancer Control* from 2013, with specialist healthcare publisher, Global Health Dynamics, looking at all aspects of cancer policy, prevention, detection, treatment and palliation.

Palliative care

- ➔ Training and educating healthcare professionals – doctors, nurses and social workers in the principles of palliative care – in Brazil, Cameroon, Burkina Faso, Sénégal, Mali, Tanzania, India and Nepal.
- ➔ Sensitization workshops for government officials and the public in Brazil, Tanzania, India and Nepal.
- ➔ Development of a centre of excellence in palliative care for both adults and children in Hyderabad, India.
- ➔ Lobbying governments to improve access to opioids for terminally-ill cancer patients – Nepal and India.
- ➔ Establishment of twinning programmes with hospices in Canada that support palliative care efforts in Nepal.
- ➔ Fostering the establishment of palliative care societies – in

Nepal and Pakistan.

- ➔ Promoting paediatric palliative care in Pakistan.
- ➔ Publishing a palliative care handbook describing the management of a wide variety of symptoms in English, Portuguese, French and Turkish.
- ➔ Development of the “Life at Your Doorstep” home care programme offering extensive, 24/7 support for patients and families struggling with advanced and terminal illness in the cities of Hyderabad and Secunderabad.
- ➔ Organized training course for Francophone sub-Saharan Africa in Uganda. This was led by HASPF and the Institute of Hospice and Palliative care in Africa with expert input by Hospice Africa Uganda and Alliance Mondial Contre le Cancer.
- ➔ Palliative care workshops and training courses for Francophone sub-Saharan Africa organized by AMCC in partnership with AFSO were held in Uganda and Ivory Coast.
- ➔ Establishment of palliative care centres of reference and training in sub-Saharan Francophone Africa (Mali, Cameroon, Ivory Coast).
- ➔ Canadian branch provides training in India for St Mary Hospital in palliative care and fosters a collaborative approach between palliative care and health care in Nepal.
- ➔ Development of palliative care programme in Rajasthan, India.

Paediatric oncology

- ➔ Establishment of centres of reference for the treatment of retinoblastoma – Mali and Democratic Republic of Congo.
- ➔ Mentoring of Indian paediatric oncologists in the development of a common treatment protocol for Wilms Tumour.
- ➔ Conducting workshops and symposia on topics of relevance in developing countries.
- ➔ Promotion of the establishment of paediatric oncology societies – Philippines and Pakistan.
- ➔ Development of a centre of excellence in paediatric oncology at the Santa Marcelina Hospital/TUCCA in São Paulo, Brazil.
- ➔ Conducting a campaign for the early diagnosis of retinoblastoma including, but not limited to, the translation of a film showing a child with early retinoblastoma into 12 languages and distributing the film around the world (Brazil); development and wide dissemination and display of posters (Mexico and Brazil); and establishment of a retinoblastoma day (Turkey and Brazil).
- ➔ Ophthalmology nurses from the Democratic Republic of Congo trained in France to fit prosthetic eyes following enucleation (surgical removal of the eye) for the treatment of retinoblastoma.

Pathology

- ➔ Central pathology review of Burkitt Lymphoma in institutions participating in the treatment protocol for this disease in

Africa.

- ➔ Training and education workshops for pathologists and clinicians.
- ➔ Training and education workshops for technicians and pathologists in techniques to improve diagnostic capabilities.
- ➔ Use of iPath – an internet telepathology programme – for consultation, training and education.
- ➔ Provision of training and education of haematopathologists in Francophone African countries (Cameroon, Democratic Republic of Congo, Sénégal).
- ➔ “What can we learn from Africa” pathology workshop held in Arusha, Tanzania for pathologists from Senegal, Benin and Democratic Republic of Congo to improve the ability of African haemato-pathologists to diagnose haematopathological neoplasms using the World Health Organization Classification.
- ➔ Setting up of a project to characterize lymphoproliferative disorders in adults in Senegal in partnership with local universities.
- ➔ Programme to improve pathologic and haematologic diagnostics established in Ethiopia using onsite and online training, education, and consultations.

Psychosocial support

- ➔ Development of an educational programme relating to the psychosocial needs of cancer patients in conjunction with the Brazilian Society of Paediatric Oncology.

World Health Organization

- ➔ Organized the 2009 update of the WHO Essential Medicines

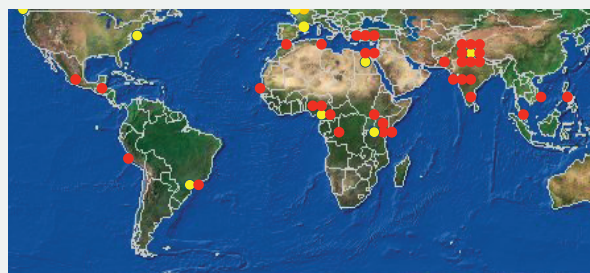
List for Cancer.

- ➔ Participated in guideline updating and development (cervical cancer, Kaposi sarcoma and referral guidelines for breast and cervical cancer).
- ➔ Consultation with Dr Jean Marie Dangou, Head of AFRO (African Regional Office of WHO) on non-AIDS defining malignancies in HIV positive individuals.
- ➔ INCTR organized an advisory meeting for WHO AFRO relating to the issue of AIDS-related but non-AIDS defining cancers in Africa. A report was provided to AFRO.
- ➔ Advising EMRO on a planned high-level meeting in the region late in 2014.
- ➔ INCTR is participating in the development of recommendations for the management of cancer in the Eastern Mediterranean region. INCTR’s particular focus will be cancer information and the development of a tool that countries can use to identify their strengths and weaknesses with respect to cancer control, and develop or modify plans accordingly.

Considerable attention will be paid to the identification of methods of collecting and assessing the quality of data, the use of data in making scientific observations and/or the creation of evidence essential to establishing effective treatment programmes. INCTR will work more closely with governments in this regard, and funding for training, projects, scientific studies etc. will come from both within the country and outside the country. Every attempt will be made to ensure that programmes are self-sustaining after a reasonable time has passed.

INCTR Branches

Branches are established as legal non-profit organizations within the country in which they are located so that they may raise and disburse funds in support of INCTR’s mission. Branches establish and maintain linkages with cancer centres or units, relevant professional organizations or elements of national or regional governments and coordinate ongoing INCTR programmes and projects within the country or region, if located in a low- and middle-income country. INCTR branches are listed below.

**BRAZIL**

INCTR Brazil
Associação Internacional para Tratamento e Pesquisa do Cancer
Av Nove de Julho, 4275
Jardim Paulista, CEP 01407-199
São Paulo, SP, Brasil
➔ President: Dr Sidnei Epelman
Contact: inctr@inctrbrasil.org

CANADA

INCTR Canada “Two Worlds Cancer Collaboration”
401–41 Alexander Street
Vancouver, British Columbia
V6A 1B2 CANADA
➔ President: Dr Simon Sutcliffe
➔ Treasurer: Dr Stuart Brown
➔ Secretary: Dr Fraser Black
Contact: cci-cancercontrol@shaw.ca
or Helen@torrance.com

EGYPT

INCTR Egypt
First Floor, app 10
2 Houd El Laban Street
Garden City, Cairo, Egypt
➔ President: Dr Hussein Khaled
➔ Executive Director: Dr Atef Badran
Contact: atef.badran@gmail.com

FRANCE

Alliance Mondiale Contre le Cancer
Institut Curie, 26 Rue D’Ulm
75005 Paris, France
➔ President: Professor Martine Raphaël
➔ Medical Director: Professor Pierre Bey
➔ Treasurer: Professor Jacques Rouëssé
➔ contact@cancer-amcc.org

INDIA

INCTR India
Swasthya Kalyan Bhawan
Narin Singh Road, Jaipur
302004 Rajasthan, India
Trustees:
➔ Dr Shivraj Singh (Managing Trustee)
➔ Mr Apurv Kumar
➔ Mr Rajiv Sahai

NEPAL

Nepalese Network for Cancer Treatment and Research INCTR
Nepal Ghokechaur Banepa 1, NEPAL
➔ Chairman: Dr Surendra B B Shrestha
➔ Vice Chairman: Dr Manohar Lal Shrestha
➔ Member Secretary: Radha Pyari Nakarmi
Contact: nnctr@ntc.net.np

UNITED KINGDOM

INCTR Challenge Fund
267 Banbury Road
Prima House, Oxford OX3 7HT
United Kingdom
Contact: max.parkin@cts.u.ox.ac.uk
➔ Chairman: Dr Max Parkin
➔ Administrator: Mrs Biying Liu
Contact: bliu@afcm.org

UNITED STATES

INCTR USA
5111 Ambergate Lane
Dallas, Texas
75287 -5405
USA
➔ President and Chairman:
Dr Madhavan Pillai
For information: info@inctr.be

Governing Council

Dr Sultan Al-Sedairy

Vice President for Development
Director, Research Centre, King Faisal Specialist Hospital
Riyadh, Saudi Arabia

Dr Robert Burton

Professor, School of Public Health and Preventative Medicine
Monash University
Melbourne, Australia

Dr Nausherwan Burki

Professor of Medicine, Division of Pulmonary

Medicine
University of Connecticut Health Center
Farmington, CT United States

Dr Sidnei Epelman

Director, Paediatric Oncology
Santa Marcelina Hospital, Sao Paulo, Brasil

Dr Ian Magrath

President, INCTR, Brussels, Belgium

Dr Donald Maxwell Parkin

Chairman of the Board,

INCTR UK Challenge Fund
Honorary Senior Researcher Fellow
CTSU – University of Oxford, United Kingdom

Dr Martine Raphael

President, AMCC, INCTR's French Branch
Hopital Bicetre
Paris, France

Mr Louis Schoofs

Secretary/Treasurer, INCTR
Former Chief Administrator
Institut Pasteur
Brussels, Belgium

Dr Simon Sutcliffe

President, Two Worlds Cancer Collaboration (INCTR Canada)
President, Canadian Partnership Against Cancer
Vancouver, BC Canada

Ambassador for Science

Dr Harald zur Hausen

Nobel Laureate in Medicine, Deutsches Krebsforschungszentrum, Heidelberg, Germany

Partner institutions in developing countries: Past and present

Africa

- ➔ Obafemi Awolowo University Teaching Hospitals Complex (Ile Ife, Nigeria)
- ➔ University College Hospital, Ibadan (Ibadan, Nigeria)
- ➔ Hôpital Général de Yaoundé (Yaoundé, Cameroon)
- ➔ Kenyatta National Hospital, University of Nairobi (Nairobi, Kenya)
- ➔ Bugando Medical Center (Mwanza, Tanzania)
- ➔ Muhimbili National Hospital (Dar es Salaam, Tanzania)
- ➔ Ocean Road Cancer Institute (Dar es Salaam, Tanzania)
- ➔ Tikur Anbessa Hospital, University of Addis Ababa (Addis Ababa, Ethiopia)
- ➔ St Mary's Hospital Lacor (Lacor, Uganda)
- ➔ Hôpital de Vanga (Vanga, Democratic Republic of Congo)
- ➔ Institut Ophthalmologique Tropical Africain, (Bamako, Mali)
- ➔ National Cancer Institute (Cairo, Egypt)
- ➔ Hôpital du Point G, Université de Bamako (Bamako, Mali)

- ➔ Centre Pasteur du Cameroun (Yaoundé, Cameroon)
- ➔ Université Cheikh Anta Diop (Dakar, Sénégal)
- ➔ CHU Mohammed VI (Marrakesh, Morocco)
- ➔ Clinique Universitaires, Faculté de Médecine de Kinshasa (Kinshasa, Democratic Republic of Congo)
- ➔ Clinique Universitaires, Université de Lubumbashi (Lubumashi, Democratic Republic of Congo)

America

- ➔ Santa Marcelina Hospital (Sao Paulo, Brazil)
- ➔ Instituto Nacional de Pediatría (Mexico City, Mexico)
- ➔ Instituto Nacional de Enfermedades Neoplásicas (Lima, Peru)
- ➔ Universidad Francisco Marroquin (Guatemala City, Guatemala)
- ➔ El Instituto Oncologico Del Oriente Boliviano (Santa Cruz, Bolivia)

Asia

- ➔ Ankara University (Ankara, Turkey)
- ➔ Hacettepe University (Ankara, Turkey)

- ➔ Dokuz Eylül University (Izmir, Turkey)
- ➔ King Hussein Cancer Center (Amman, Jordan)
- ➔ King Faisal Specialist Hospital (Riyadh, Saudi Arabia)
- ➔ Children Cancer Institute, Ziauddin Medical University (Karachi, Pakistan)
- ➔ Jinnah Hospital Lahore – Allama Iqbal Medical College (Lahore, Pakistan)
- ➔ Shaukat Khanum Memorial Cancer Hospital and Research Centre (Lahore, Pakistan)
- ➔ All India Institute of Medical Sciences (New Delhi, India)
- ➔ Cancer Institute (WIA) (Chennai, India)
- ➔ Jaslok Hospital and Research Centre (Mumbai, India)
- ➔ MNJ Institute of Oncology (Hyderabad, India)
- ➔ Tata Memorial Centre (Mumbai, India)
- ➔ Nepal Institute of Health Sciences (Kathmandu, Nepal)
- ➔ B P Koirala Memorial Cancer Hospital (Bharatpur, Chitwan, Nepal)
- ➔ Bhaktapur Cancer Care Hospital (Bhaktapur, Nepal)
- ➔ Hospice Nepal (Kathmandu, Nepal)
- ➔ Kanti Children's Hospital (Kathmandu, Nepal)
- ➔ Shechan Hospice (Kathmandu, Nepal)
- ➔ Scheer Memorial Hospital (Banepa, Nepal)
- ➔ Patan Hospital (Kathmandu, Nepal)
- ➔ Philippine Children's Medical Center (Quezon City, Philippines)
- ➔ Shanghai Children's Hospital (Shanghai, China)
- ➔ Sarawak General Hospital and Sarawak Hospice Society (Kuching, Sarawak, Malaysia)

Latin America

- ➔ Santa Marcelina Hospital (Sao Paulo, Brazil)
- ➔ Instituto Nacional de Pediatría (Mexico City, Mexico)
- ➔ Instituto Nacional de Enfermedades Neoplásicas (Lima, Peru)
- ➔ Universidad Francisco Marroquin (Guatemala City, Guatemala)
- ➔ El Instituto Oncologico Del Oriente Boliviano (Santa Cruz, Bolivia)

Partners: Past and present

ORGANIZATIONS

World Health Organization (NGO in Official Relations)
 International Agency for Research on Cancer
 International Atomic Energy Agency/PACT
 Union for International Cancer Control
 European School of Oncology
 European Society of Medical Oncology

NGOs

American Cancer Society
 The Australian Cervical Cancer Foundation
 Augusta Victoria Hospital
 Breast Global Health Initiative
 Doris Duke Charitable Foundation
 Global Giving
 Hospice Africa France
 ICEDOC
 Jiv Daya Foundation
 Open Society Institute
 The Aslan Project
 TUCCA

PHARMACEUTICAL COMPANIES AND THEIR FOUNDATIONS

CIPLA Foundation
 Eli Lilly
 Glaxo Smith Kline
 Novartis Brasil
 Roche
 Sanofi-aventis – Fondation sanofi-espoir

ACADEMIC INSTITUTIONS

Georgetown University, Washington, DC USA
 Hopital Bicetre, Paris, France
 Imperial College, Hammersmith Hospital, London, UK
 Institut Curie, Paris, France
 King's College Health Partners, London, UK
 Nainamo Hospice, British Columbia, Canada
 National Cancer Institute of Brazil, Rio de Janeiro, Brazil
 National Cancer Institute of France, Paris, France
 University of Basel, Switzerland
 University of Ghent, Belgium
 University of Lund, Sweden
 University of Siena, Italy

GOVERNMENTS

Government of Australia, Australian Embassy, Nepal
 Government of Brazil
 Government of Ethiopia
 Government of Mali
 Government of Nigeria
 Government of Sénégal
 Government of Tanzania
 Government of Uzbekistan

COMMERCIAL COMPANIES

AGFA-Gaeverts
 ESMO
 Global Health Dynamics