

ROTARY FOUNDATION CENTENNIAL ANNIVERSARY GLOBAL GRANT PROPOSAL BY
THE ROTARY CLUBS OF CYPRUS (D2452)

ESTABLISHMENT OF A
CHILDHOOD CANCER DIAGNOSTIC CENTRE
(CELLULAR BIOMARKER DETECTION UNIT)
AT THE KARAIKAKION FOUNDATION
GG1752716

FOR THE HUMANE AND EFFECTIVE TREATMENT OF CHILDHOOD CANCER



THE PROJECT SUMMARY

The Cyprus Rotary Clubs are inviting overseas Rotary Clubs and Districts to support their efforts to submit a Global Grant Application, under the Disease Prevention and Treatment Area of Focus of Rotary International, for the establishment at the Karaiskakion Foundation, of a state of the art Childhood Cancer Diagnostic Centre (Cellular Biomarker Detection Unit), which will enable doctors and scientists, to implement advanced targeted treatments against childhood cancer, thereby improving survival rates and minimizing treatment related collateral damage". It is forecasted that the total cost of the project is around \$283,400 and the implementation horizon is 12 months.

SOME POINTS OF REFLECTION

- How many of you have somebody in their family or immediate circle of friends who has suffered or is suffering from cancer?
- How many of you, have seen the devastating effects of indiscriminate cancer treatment in your loved ones?
- Isn't it about time we did something to make the treatment of this disease more effective and humane?

AT A TIME WHEN...

- Science makes possible the targeted treatment of cancer
-targeted according to the specific needs of each patient
- significantly improving survival rates

- ...and minimizing treatment related collateral damage

RATIONAL, WHY WE NEED IT

With 160,000 new cases and 90,000 deaths per year in children under 15 years of age worldwide, childhood cancer is currently the leading disease-related cause of death among children in industrial countries and the most common cause of death by disease in teenagers and young adults. As the 'one size fits all' approach to treating children with cancer does not work, especially for those diagnosed with most aggressive cancers, personalised and precision medicine are considered to be as the future of cancer therapy. Moreover, the appropriate therapy selection and maximized cure rates depend on fast tumour diagnosis, classification and staging.

With around 200-250 paediatric biopsies for characterisation per year there is yet no single center specialized in childhood cancer diagnosis or childhood cancer research in Cyprus. Hence, the project promoters aim to support those suffering from childhood and youth cancers, by accelerating the translation of new methodologies into interventions that benefit patients, with ways such as early diagnostics, precision medicine applications, targeted biomarker detection and characterization.

WHAT WILL THE UNIT ACTUALLY DO?

The proposed Cellular Biomarker Detection Unit aims to provide a structured, systematic and comprehensive support to children (and adults) with a broad range of neoplastic diseases. By the establishment of a state-of-the-art, integrated and multi-disciplinary laboratory unit, it will be possible to provide a complete and informative diagnosis in a timely manner. This will lead to the appropriate therapy selection, improving the capacity of local health care professionals to implement the use of advanced personalized targeted treatment protocols with better outcome and reduced toxicity, reducing mortality and morbidity in paediatric cancer patients.

Through the establishment of an integrated centre, the scientists at Karaiskakion Foundation will be able to routinely perform diagnostic testing and interpret molecular and cellular data during early diagnosis, utilizing the limited yet valuable patient biopsy samples.

WHAT WILL THE PROJECT ACTUALLY FUND?

- The Purchase of laboratory equipment
- The training of a new scientist for operation and maintenance
- The Introduction of a new diagnostic methodology
- The establishment of a comprehensive quality management system, monitoring quality of activities and measuring results
- The Training of local health care professionals in utilizing the test results
- A Public awareness campaign to inform patients and the public of the new available treatment methodologies

BUDGET AND FUNDING OF THE PROJECT

- Budget: \$283,400
- To be funded:

- \$78,000 Host Country & 2452 DDF
- \$105,600 International Partners and other DDF
- Global Grant \$99,800
- Local Host Club Nicosia Lefkothea pledged \$21,000
- All other Cyprus based Clubs pledged \$53,000
- International Partner Club Aquileia–Cervignano –Palmanova pledged \$2,000 and DDF from District 2060 of \$10,000
- Implementation Horizon: 12 months

THE BENEFICIARY AND ITS STRATEGIC PARTNERS

The proposed Unit will be a partnership between the Karaiskakio Foundation (KF), the Centre for the Study of Haematological Malignancies (CSHM), the University of Cyprus Medical School, the Paediatric Oncology Centre at Makarios Hospital and the Haematology Departments of the Nicosia and Limassol General Hospitals.

The Karaiskakion Foundation is no stranger to Cyprus Rotary as it has received a matching Grant (Centennial Project) for the establishment of the Rotary Cord Blood Register and Bank which currently has more than 3000 members and which has recently succeeded in being accredited.

Karaiskakion Foundation is a world class, nonprofit, biological research center helping free of charge hundreds of people of all races, religions and countries. To a great extent it relies for its operation on donations and subsidies.

One of the Foundation's main activities is the setting up, management, renewal and expansion of the Cyprus Bone Marrow Register (CBMR), which is the largest per capita registry in the world, with 160,000 registered Greek, Turkish Cypriot and other nationality Donors.

During the last 15 years, it has contributed through its Donors, 300 lifesaving bone marrow transplants to patients suffering from Leukemia, in 28 different countries including Cyprus, Italy, Turkey, Canada Spain, Germany, Greece, Iran, Australia etc.

For more information about the Karaiskakion Foundation please visit www.karaiskakio.org.cy

SUSTAINABILITY

The unit will be housed at a 600m² laboratory space currently under construction to host the paediatric cancer laboratory at the grounds of KF and it will be part of the CSHM expansion, serving for diagnostic, clinical, research and teaching purposes. The laboratory will be ready within a year. The proposed funding will be used for the purchasing of a BD FACSAria multi-colour flow cytometer with sorting capabilities, cell culture hoods and a CO₂ incubator and other basic laboratory equipment. Part of the budget will also be used for the purchasing of antibodies and other reagents for the development of the new assay.

All the construction costs for the laboratory are funded by the Karaiskakion Foundation who will undertake to fund also its operation after its completion, the cost of the salaries of the scientists undertaking the tests and the maintenance of the equipment.

The services of the Unit will be provided free of charge and to approximately 200 paediatric cancer and many other adult patients with haematological malignancies (e.g. lymphomas and multiple myeloma) from the Greek, Turkish and other communities in Cyprus.

EFFECTIVENESS OF THE TESTS CURRIED OUT AT THE PROPOSED UNIT

Many studies have identified gene signatures that discriminate between good and poor responders to chemotherapy in various cancer types. Using these classifiers, the Centre will be able to predict the chemoresponse of patients prior to the initiation of treatment. The genetic-genomic approach will modernize the diagnosis and prognosis of pediatric cancer patients and improve their outcome through predictive, personalized care. It will be a valuable tool in the hands of doctors treating cancer patients.

JOIN US AND SUPPORT OUR EFFORTS

Cyprus Rotary Clubs invite overseas Rotary Clubs and Districts to participate by pledging their contributions to our Global Grant Proposal for the establishment of this state of the art laboratory which will make the treatment of Childhood cancer significantly more effective. The project is:

- in line with the Rotary International Disease Prevention and Treatment Area of Focus
- Is sustainable and measurable and
- Will satisfy a great community need while at the same time enhance the image of Rotary in Cyprus

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