

**OBJECTIVES**

**WELCOME TO THE GLOBAL GRANT APPLICATION**

Your application has been assigned the reference number GG1634121 , which you can use for tracking and when communicating with The Rotary Foundation or colleagues.

**PLANNED ACTIVITIES**

**In a few short sentences, tell us your objectives for this global grant.**

One of the most basic tools of modern health care is x-ray imaging. The World Health Organization (WHO) estimates that two-thirds of the world's population lacks access to efficient diagnostic imaging health services. The primary objective of this global grant is to improve access to diagnostic radiology services for the poor and underserved children of Tanzania by providing a digital x-ray system, a digital dental x-ray system and an ultrasound system to the first pediatric hospital in Tanzania, in Zinga. Electronic Images obtained at the clinic then are accessed and evaluated remotely by radiologists in Tanzanian and other medical centers elsewhere. This proposal is for the order, shipping and installation of a these 3 systems in the same facility, to help them build and sustain a center of excellence for the care of children.

**Who will benefit from this global grant? Provide the estimated number of direct beneficiaries.**

It is estimated 100 children (aged up to 18) will be seen a day, Sixty per cent of those presenting for the first time will require some form of diagnostic imaging to confirm or challenge initial diagnostic impressions.

**Which of the following activities will this global grant fund?**

Humanitarian project

**Humanitarian Project**

**Where will your project take place?**

**Community:** Childrens Hospital at Zinga,Tanzania

**City or Village:** Zinga

**Country:** Tanzania, United Republic of

**When do you anticipate your project will take place?**

**From:**2015-07-01 **Until:** 2016-10-30

**Outline your project implementation schedule.**

No.	Activity	Duration
1	Proposal and project initial planning	April - July, 2015
2	Refinement of proposal	july 2015 - April 2016
3	Fund raising	April - December 2015
4	Funds sent & equipment ordered	May - July 2016
5	Site readiness	August 2015- June 2016
6	Site Review / vendor liason by host club	March 2016 to July 2016
7	Equipment installed, training started	June 2016 - August 2016
8	Reporting format established with schedule	June 2016

9	Clinical training & follow up of site use	June 2016 - October 2016
10	Start using the imaging systems	June 2016
11	Hand off and final report	October 2016
12	Monitoring and evaluation by Rotarians	October 2016 - September 2017

**SUSTAINABILITY**

**What community needs will your project address and how were these needs identified? Provide any relevant data or survey results**

Few radiology services exist outside of urban areas. The community needs in Tanzania is the lack of diagnostic imaging services and access to diagnoses and treatment of the economically marginalized people in Tanzania.

Tanzania has one of the highest maternity and infant mortality rates in the world . This will be the first free standing pediatric hospital of its kind which is in the final construction phase. The need is to obtain high quality x-rays, ultrasounds and dental X-rays for diagnostic purposes.

International Health Partners (“IHP”), a non-profit organization, has surveyed the needs of the area around Dar es Salaam and is requesting a digital X-ray, an Ultrasound and digital dental X-ray for the pediatric hospital.

Following are their comments with respect to the needs:

1. Digital x rays records are easy to store and share.
2. The ability to utilize the Internet with the digital X-ray allows for easy consult with other radiologists for opinion on questionable conditions. It makes for rapid and easy communication.
3. Digital x- rays are environmentally better than the solutions needed for analog.
4. There are local technicians already trained for maintenance of a digital X-ray machine.
5. Medical stores in Tanzania often run out of chemicals and film. These are not needed for digital X-rays.
6. The products of a Digital X-ray machine give the ability to enlarge specific areas of the X-ray for closer analysis.
7. In the long run, a digital X-ray machine will save money. No need for the supplies for an analog X-ray.

In addition, an X-ray unit is needed to achieve accreditation by the Tanzania Ministry Of Health (“MOH”) as the first free standing Children’s Hospital in Tanzania.

The World Health Organization (“WHO”) World Health Imaging System for Radiology (“WHIS-RAD”) program is a 35-year old initiative with its primary objective to improve access to imaging services in the developing world. To date, about 2,500 WHIS-RAD units have been installed in developing countries over the past 30 years.

The x-ray capability alone will help physicians to diagnose a variety of conditions including:  
 Chest: pneumonia, tuberculosis, congestive heart failure, enlarged heart, tumors, and such trauma as fractured ribs or collapsed lung;  
 Musculoskeletal: trauma, metabolic conditions such as scurvy, degenerative conditions, arthritis;  
 Abdomen: abdominal or pelvic pathologies such as gallstones or kidney stones, bowel obstructions and tumors; Head: trauma, sinusitis (differentiate between viral and bacterial), and neonatal skull abnormalities.

**Detail how your project will address these community needs.**

The project will install the digital X-ray systems and ultrasound equipment for diagnoses and treatment. The equipment will be used by trained radiology technicians who will take the required images, and provide images to primary care physicians and off-site radiologists for diagnosis and referral for treatment. The images will be electronically archived, managed and sent to off site radiologists via teleradiology, so that consulting radiologists will be able to read the images.

**How were members of the local community involved in planning the project? Does your project align with any current or ongoing local initiatives?**

Volunteers and friends of members of the Rotary Clubs of Park Ridge, Macomb and Woodland Hills make annual trips to this area of Tanzania . Work on similar projects in other regions of Africa and Nepal has been spearheaded by Rotarian John Vanden Brink, a member of the Rotary Club of Park Ridge in District 6440, and a retired radiology industry professional with contacts in industry organizations.

**Describe any training, community outreach, or educational programs, if applicable, and who will conduct them. How will recipients be selected?**

The vendor will conduct training after the installation. In addition, Drs. Powell and Lofstrom who will be on site full time already have been trained in radiology procedures and clinical interpretation.

IHP has budgeted to hire a Radiology Technologist when the equipment arrives. This person will have a minimum of two years' work experience in equipment operation and radiology procedures; already having been through training.

Included in the grant request is a line item for \$2,500 for travel expenses and for on-site training by Rotarian Herman Oosterwijk from Denton, Texas. He is an international expert in the digital medical imaging field, whose business is consulting and training on digital imaging. (See Oosterwijk credentials in this grant request). He will spend a minimum of 1 week at Zinga addressing the issues of digital medical imaging and training the staff there in digital medical procedures.

IHP has exchange programs with Mayo Clinic in Rochester, Minnesota. Dr. Douglas (Rusty) Brown of the Mayo radiology department has offered to provide assistance if needed,

Dr. Mike Nelson of the University of Minnesota, who spends about half his time in Tanzania at the Kilimanjaro Christian Medical Center in Moshi, Tanzania, will be providing the Ultrasound unit and training on that if needed.

Personnel from Aga Khan Hospital, a tertiary care center in Africa, are also prepared to provide training resources

Dr. Dexter Quiggle, a dentist, of the Luna Vista Rotary club who has visited Children's Hospital Zinga twice, will provide training on the digital dental X-ray system.

DRs. Brown and Nelson are members of the American College of Radiology (ACR) Foundation Outreach Committee, with whom Vanden Brink, Wear, Oosterwijk and Jambor have been working for the last two years. (see [www.acr.org](http://www.acr.org) ) The ACR is providing assistance to this installation and to Rotary. They have 38,000+ radiologists as members and extensive educational depth and resources. If we need additional training or education, they will provide a rich resource of capability including on site personnel.

**Areas of Focus**

**Disease prevention and treatment**

**Which goals will your activity support?**

Improving the capacity of local health care professionals;Promoting disease prevention programs, with the goal of limiting the spread of communicable diseases and reducing the incidences of and complications from non-communicable diseases;Enhancing the health infrastructure of local communities;Preventing physical disability resulting from disease or injury

**How will you meet these goals?**

Daily records will be kept of each imaging procedure including age, gender, presenting diagnosis, procedure performed

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and outcome, among other possible data elements captured. Monthly summaries will be provided to host club and International sponsors for review with comparison to admissions for each month to determine utilization. The exact reporting profile will be negotiated with The Children's Hospital

Review of performance and effectiveness will be conducted by host club to assure the systems are meeting expectations.

**How will you measure your impact?**

No.	Measure	Measurement Method	Measurement Schedule	Target
1	Number of medical and health professionals trained	Direct observation	Every year	1-19
2	Number of individuals reporting better quality of health care services	Grant records and reports	Every year	2500+
3	Number of recipients of disease prevention intervention	Testing	Every three months	500-999

**Who will be responsible for collecting information for monitoring and evaluation?**

Images from the equipment will be stored electronically on site and will include patient identification. Clinic records will show both the number of patients for whom imaging is requested and the treatment following analysis of the images. Monitoring of clinic records by the staff at ZPH with oversight by the host club will then will indicate the impact of the new equipment on the both the patient load and the patient outcomes. Rotarians from Bahari-Dar-es-Salaam will visit the clinic periodically to observe the impact of the equipment and to gather information directly from the medical professionals.

**Maternal and child health**

**Which goals will your activity support?**

Reducing the mortality and morbidity rate for children under the age of five; Reducing the maternal mortality and morbidity rate; Improving access to essential medical services, trained community health leaders and health care providers for mothers and their children; Supporting studies for career-minded professionals related to maternal and child health

**How will you meet these goals?**

Diagnostic imaging plays a critical role in diagnosing and treating female disorders in pregnancy. Ultrasound in particular provides a way to diagnose neonatal issues and provides guidance in treatment without the use of radiation, which is not advised for pregnant women.

Trauma, T.B. and heart disease can be diagnosed with X-ray. Early diagnosis and treatment are critical to reducing mortality rates.

**How will you measure your impact?**

No.	Measure	Measurement Method	Measurement Schedule	Target
1	Number of children under age 5 receiving medical treatment	Grant records and reports	Every three months	100-499
2	Number of mothers receiving prenatal care	Grant records and reports	Every year	50-99
3	Number of communities that report decreased morbidity rates of children	Grant records and reports	Every year	100-499

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	under age 5	reports		
4	Number of benefiting health facilities	Grant records and reports	Every year	500-999

**Who will be responsible for collecting information for monitoring and evaluation?**

Images from the equipment will be stored electronically on site and will include patient identification. Clinic records will show both the number of patients for whom imaging is requested and the treatment following analysis of the images. Monitoring of clinic records by the staff at ZPH with oversight by the host club will then will indicate the impact of the new equipment on the both the patient load and the patient outcomes. Rotarians from Bahari-Dar-es-Salaam will visit the clinic periodically to observe the impact of the equipment and to gather information directly from the medical professionals.

**Participants**

**Primary Contacts**

Name	Club	Role	Sponsored by	Serving as
Muzaffer Sulemanji	Bahari-Dar-es-Salaam	(Primary Contact)	Club	Host
John Vanden Brink	Park Ridge	(Primary Contact)	Club	International

**Committee Members**

#	Name	Club	Role
1	Ramesh Chauhan	Bahari-Dar-es-Salaam	(Secondary Host Contact)
2	JeanPaul Fonkwa	Bahari-Dar-es-Salaam	(Secondary Host Contact)

#	Name	Club	Role
1	John Alan Boryk	Park Ridge	(Secondary International Contact)
2	Randy Wear	Park Ridge	(Secondary International Contact)

No Rotarian who has a vested interest in the activity (e.g., an employee or board member of a cooperating organization, owner of a store where project goods will be purchased, trustee of a university that a scholar plans to attend) may serve on the grant committee. If any potential conflict of interest exists, disclose it here.

**Cooperating Organization**

No.	Name	Website	Street address or P.O. box	City	Country
1	American College of Radiology	www.acr.org	1891 Preston White Dr.	Reston, Virginia	United States
2	First United Methodist Church of	www.parkridgeumc.org	418 West Touhy Ave.	Park Ridge, IL	United States

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	Park Ridge				
3	International Health Partners, U.S.	www.ihptz.org	11811 So. 39th St., #36	Meza, AZ	United States

**Describe your process for selecting this organization. What resources or expertise will this organization contribute?**

There are long-term relationships with members of Rotary clubs on the International Committee, and successful mission endeavors over a number of years. IHP requested the donation on behalf of Children's Hospital Zinga.

**VOLUNTEER TRAVELER(S)**

No.	Name	Email
1	Herman Oosterwijk	herman@otechimg.com

**Identify the responsibilities of the volunteer traveler(s) and the specific tasks that each individual will complete.**

Herman Oosterwijk will provide a basic training course in digital medical imaging including PACS similar to what he has provided globally for many sites worldwide. He chairs the Rotary Digital Imaging and Medical Informatics Support Team (DIMIST), which was organized to provide support for Rotary clubs and Districts and others interested in installing digital medical imaging systems. See www.dimist.org

**PARTNERS**

List any additional partners who will participate and identify their responsibilities. This may include Rotary clubs, Rotaract clubs, Rotary Community Corps, or individuals.

Clubs:

Luna Vista Rotary Club, Woodland, CA Dr. Dexter Quiggle- Responsible for Digital Dental system, installation, training-organizing northern California clubs as participants

Macomb Rotary club-Michelle Terry-liaison with Host club and VAT issues Negotiate MOU

Herman Oosterwijk. Herman Oosterwijk is an internationally known expert on digital imaging. He has been a trainer/consultant for over 20 years on digital radiography and connectivity and published more than ten textbooks and study guides on this subject. He is the lead of the Diagnostic Imaging and Medical Informatics Support Team which supports rotary groups with implementing digital imaging systems. See enclosed for his resume.

Clubs who are participating by providing funding:

- Rotary Club of Louisburg, CA
- Macomb Morning Rotary Club of Macomb, IL
- Rotary Club of Park Ridge, IL
- Luna Vista Rotary Club of Woodland Hills, CA
- Woodland Noon Rotary Club
- Woodland Sunrise Rotary Club
- Davis Sunset Rotary Club
- Davis Sunrise Rotary Club
- Winters Rotary Club
- Barrington Rotary Club
- Northbrook Rotary Club

Rotary Club of Dar es Salam, Tanzania - the international host. Participating by site prep and review, monitoring, facilitating the receipt of the equipment, mentoring, reporting overview.

**ROTARIAN PARTICIPATION**

**Describe the role of the host Rotarians in this activity and list their specific responsibilities.**

The role of the Bihari Dar Es Salaam club will be to help negotiate VAT exemptions, if possible, provide oversight on receipt, installation, training and support arrangements with vendors, assuring periodic reporting of metrics under the terms of the MOU and assisting Children's Hospital Zinga where possible and appropriate to the terms of the MOU.

**Describe the role of the international Rotarians in this activity and list their specific responsibilities.**

The International Committee will foster support for the project among multiple Rotary clubs and Districts

**SUSTAINABILITY**

**Describe the role that members of the local community will play in implementing your project. What incentives (e.g., compensation, awards, certification, promotion) will you provide to encourage local participation?**

Volunteers and friends of members of the Rotary Club of Park Ridge make annual trips to this area of Tanzania constructing such projects as a library and other necessary buildings. Work on similar projects in other regions of Africa and Nepal has been spearheaded by Rotarian John Vanden Brink, a member of the Rotary Club of Park Ridge in District 6440, and a retired radiology industry professional with contacts in the partnering organizations.

The City of Park Ridge is aware of the need in Tanzania through the visits of Rotarian and non-Rotarian mission trips and donations from the community. A city-wide recognition of those participants and an acknowledgement of their contributions are in the planning stage.

**Identify any individuals in the local community who will be responsible for monitoring outcomes and ensuring continuity of services. How will you support these individuals to help them take on this leadership role?**

A DIMIST team has been in place since 2012 at Park Ridge Rotary. This team, led by John Vandenbrink with assistance from Randy Wear, John Alan Boryk and our local club, provides support for a continuing, sustained commitment to installing digital imaging systems globally. This effort began in 1999.

Rotarian John VandenBrink has knowledge and experience in the radiology field. He will be receiving regular reports on the use of the equipment. Continued yearly visits to this area of Tanzania are planned. Non-Rotarians John and Kate Kerin, Dorothy Silver, and others from The United Methodist Church of Park Ridge have an ongoing relationship with the partners in Tanzania and will continue to make annual trips to the site.

**BUDGET**

**Select the local currency for your budget and enter the current rate of exchange to 1 U.S. dollar. Obtain the current RI exchange rate from Rotary's website. If your country is not on the official RI exchange rates list, visit the Oanda or Bloomberg website to obtain the current rate.**

Detail your proposed expenses by adding items to the budget. Note that the total budget must be equal to the total financing of your activity.

**Local currency: USD Exchange rate to 1 USD: 1**

No.	Description	Supplier	Category	Local cost (USD)	Cost in USD
1	X-ray and CR system	Pacifica Diagnostics/Fuji	Equipment	68,000.00	\$68,000.00
2	Dental digital X-ray	Benco Dental/Cook	Equipment	6,090.00	\$6,090.00
3	Ultrasound system	Breast-Med/Kashin/Univ.	Equipment	12,878.00	\$12,878.00

		of Miesota			
4	Training	Rtn. Herman Oosterwijk	Travel	2,500.00	\$2,500.00
5	VAT/Contingency	Tanzania gov't.	Project management	10,282.00	\$10,282.00
6	Printer for imaging systems	OKI/FMS	Equipment	3,000.00	\$3,000.00
7	Laptop	Local	Equipment	1,000.00	\$1,000.00
				<b>Total budget:</b>	<b>103,750.00</b>
					<b>\$103,750.00</b>

**SUSTAINABILITY**

**Describe the process for selecting these budget items. Do you plan to purchase any items from local vendors? Have you performed a competitive bidding process to select vendors? Do these budget items align with the local culture and technology standards?**

The Fuji X-ray system has been requested by IHP. The Fuji distributor organization is strong in Tanzania with multiple installations and long term presence in the area. The CR has been competitively bid by Agfa, Carestream and Fuji. The Ultrasound acquisition is based on a recommendation by Dr. Mike Nelson of KCMC in Tanzania who has installed 20 units, all of which are working well after 3 years. Dr. Quiggle is a dentist who has worked with IHP and selected the supplier based on his experience..

**How will the beneficiaries maintain these items? If applicable, confirm that spare or replacement parts are readily available and that the beneficiaries possess the skills to operate equipment.**

The beneficiaries will be given training in how to maintain the technology by the vendors and trainers. Spare parts are available for the Fuji system from the Distributor in Dar, 30 Km away.. Spare part for Ultrasound will be available through KCMC and the U of M who have 20 similar units in the area. DIMIST will assist in the follow-up of questions and requirements.

**Who will own the items purchased with grant funds at the end of the project, including equipment, assets, and materials? Note that items cannot be owned by a Rotary club or Rotarian.**

Children's Hospital Zinga

**FINANCING**

The Rotary Foundation funds global grants from the World Fund, and awards range from US\$15,000 to US\$200,000. The Foundation matches cash contributions at 50 percent and District Designated Fund (DDF) contributions at 100 percent. The Foundation will also match non-Rotarian contributions toward a grant, provided they do not come from a cooperating organization or a beneficiary.

To determine the World Fund match for your global grant, list all sources of funding, specifying contributions from cash, DDF, and other sources. Non Rotarian contributions with no match from TRF can be included in the grant financing if they are being used to purchase grant budget items. These contributions should not be sent to TRF. Note that the total financing must be equal to the total budget of your activity.

\* NOTE: Any grant cash contributions sent to TRF must include an additional to support processing expenses.

After you have added all funding sources and the requested World Fund match, click "Save" to save your grant financing.



#	Funding Method	Organization	Amount (USD)	Extra support*	Contribution + Extra support*
1	Cash from club	Park Ridge	\$6,000.00	\$300.00	\$6,300.00
2	Cash from club	Wilmette	\$2,500.00	\$125.00	\$2,625.00
3	Cash from club	Northbrook	\$2,000.00	\$100.00	\$2,100.00
4	Cash from club	Woodland-Luna Vista	\$2,750.00	\$137.50	\$2,887.50
5	Cash from club	Woodland	\$1,000.00	\$50.00	\$1,050.00
6	Cash from club	Davis Sunrise	\$500.00	\$25.00	\$525.00
7	Cash from club	Davis	\$250.00	\$12.50	\$262.50
8	Cash from club	Woodland Sunrise	\$250.00	\$12.50	\$262.50
9	Cash from club	Macomb	\$4,000.00	\$200.00	\$4,200.00
10	Non-Rotarian contributions to be matched by TRF	Anonymous	\$7,500.00	\$375.00	\$7,875.00
11	District Designated Fund (DDF)	6440	\$15,500.00	\$0.00	\$15,500.00
12	District Designated Fund (DDF)	5160	\$11,500.00	\$0.00	\$11,500.00
13	District Designated Fund (DDF)	6460	\$4,000.00	\$0.00	\$4,000.00
14	Cash from club	Louisburg	\$1,000.00	\$50.00	\$1,050.00
15	Cash from club	Winters	\$250.00	\$12.50	\$262.50

Funding Summary	
DDF contributions:	\$31,000.00
Cash contributions:	\$20,500.00
Non-Rotarian contributions to be matched by TRF:	\$7,500.00
Endowed/Term gift contributions:	\$0.00
Donor Advised Fund:	\$0.00
World Fund match maximum::	\$45,000.00
World Fund match (requested):	\$44,750.00
<b>Financing subtotal (matched contributions + World Fund):</b>	<b>\$103,750.00</b>
Non-Rotarian contributions with NO match from TRF:	\$0.00

<b>Total financing:</b>	\$103,750.00
Total budget:	\$103,750.00

**SUSTAINABILITY**

**Have you identified a local funding source to ensure long-term project outcomes? Will you introduce practices to help generate income for ongoing project funding?**

Children's Hospital Zinga will own the equipment and the initial supply of spare parts, will employ the trained operators, and already owns and operates this ongoing public clinic. The new digital x-ray and ultrasound capability should continue to benefit the community for about 20 years with proper maintenance; and ZPH can enter into a longer-term maintenance contract with Fuji should they deem that helpful to the clinic. The Memorandum of Understanding stipulates that the clinic must remain open and funded for a minimum of two years subsequent to the installation. It is expected that the successful implementation of the service will ensure its continuity beyond this term.

**Authorization**

Application Authorization

By submitting this global grant application, we agree to the following:

1. All information contained in this application is, to the best of our knowledge, true and accurate, and we intend to implement the activities as presented in this application.
2. The club/district agrees to undertake these activities as a club/district.
3. We will ensure all cash contributions (as detailed in the grant financing) will be forwarded to The Rotary Foundation (TRF) or sent directly to the global grant bank account after Trustee approval of the grant.
4. Rotary International (RI) and TRF may use information contained in this application to promote the activities by various means such as The Rotarian, the RI international convention, RVM: The Rotarian Video Magazine, etc.
5. We agree to share information on best practices when asked, and TRF may provide our contact information to other Rotarians who may wish advice on implementing similar activities.
6. To the best of our knowledge and belief, except as disclosed herewith, neither we nor any person with whom we have or had a personal or business relationship are engaged, or intend to engage, in benefiting from TRF grant funds or have any interest that may represent a potential competing or conflicting interest. A conflict of interest is defined as a situation in which a Rotarian, in relationship to an outside organization, is in a position to influence the spending of TRF grant funds, or influence decisions in ways that could lead directly or indirectly to financial gain for the Rotarian, a business colleague, or his or her family, or give improper advantage to others to the detriment of TRF.

**Primary Contact Authorizations**

Role	Name	Authorization Status	Authorization Date
Primary Contact	Muzaffer Sulemanji		
Primary Contact	John Vanden Brink	Authorized	26/04/2016

**DRFC**

Global Grant Record - GG1634121

Grant Title - Children's Hospital Zinga

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**Authorizations**

Role	Name	Authorization Status	Authorization Date
District Rotary Foundation Chair (DRFC)	Stephen Mwanje		
District Rotary Foundation Chair (DRFC)	Michael Ericksen		

**DDF Authorizations**