



CHRISTIAN FRIENDS OF KOREA

조선의 그리스도인 벗들

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"I am continually with you; you hold my right hand. You guide me with your counsel, and afterward you will receive me to glory. I have made the Lord God my refuge, that I may tell of all your works." Psalm 73:23-24, 28

CFK Technical/Hepatitis Team Completes Visit May 17-June 4

A 15-member CFK team completed a large scope of work in DPRK from May 17-June 4. Despite having to shorten our visit on the front end by 3 days because North Korea visa approval was not received until May 11, we were able to complete a significant scope of work including: renovation of the Pyongyang #2 Hepatitis Hospital Lab including installation of a solar/water distribution system; holding Hepatitis B treatment screening clinics in Kaesong and Pyongyang for several hundred patients; and installing a roof tile-making machine to supply badly-needed replacement roofing for rest homes and hospitals.

When we arrived on May 17, we found the Pyongyang #2 Hepatitis Hospital lab well prepared for our renovation team with a newly-poured concrete floor, holes for the doorways, new walls where we had specified, and high concrete ceilings. After long days of working side-by-side with the hospital staff and our local colleagues, the lab was completely transformed, with a reliable electrical supply (including multiple solar panels powering a battery bank/invertor system with generator backup), LED overhead lighting, drop ceilings, new doors,



CFK, MoPH, and local colleagues assemble a large solar panel frame at Pyongyang #2 Hepatitis Hospital

clean running water (including a new well and solar/gravity-fed system which is also supplying water to several other areas of the hospital), new cabinets, countertops, sinks, wall tile, electrical outlets, and solar-powered laboratory refrigerator.

To be completed in the early fall will be the flooring; all the equipment and supplies will be delivered then, too. Training has already started as staff from this hospital have been working together with the National TB Reference Lab (NTRL) staff to complete the hepatitis diagnostics taking place at the NTRL temporarily, until stand-alone hepatitis labs can be renovated in both pilot sites. What a joy it was to see the Pyongyang #2 Hepatitis Hospital lab being transformed day by day, and to share in the excitement and accomplishment of the staff and director. They are sincerely grateful for our work to bring such lasting and impactful change.

Hepatitis B Project Developing Rapidly

Rapid developments have been made in the past year in our hepatitis B diagnostic and treatment initiative. Our goal is to build a model program that can be expanded later to more patients and other locations in North Korea, to train local physicians to diagnose and treat this deadly disease, and



Patients waiting to be seen at Kaesong #2 Hepatitis Hospital

to bring hope and healing into a space that has been utterly hopeless for far too long. We don't know how many North Koreans suffer from this disease as no survey data is yet available, but we know that hepatitis B is epidemic in many East Asian countries, and we fear the DPRK is no different.

After seeing hundreds of hepatitis B patients and evaluating their test results, we know that many are very sick and desperately in need of anti-viral medicine that can prolong their lives. Not all of them can be saved; we know some with advanced disease will die despite our best efforts. But we also know that many can be saved, and their quality and length of life will be greatly improved by taking this medicine. In most cases, one pill a day will alleviate their symptoms, allow them to live a normal life, and give them true hope and a future.

Just as we did last November, and again in March, our small team had the privilege in May of meeting individually with several hundred patients over the course of several days – talking with them, hearing their stories, seeing their faces, and sensing their hopes and fears. Now, when I look through their photographs, among them I remember a very sick mom not only worried about herself but also about her two adult infected sons, a shy sixteen-year-old girl nervous to come to clinic who showed up anyway, laborers with rough hands, well-dressed students from a prestigious university, two brothers likely infected from birth, a cancer specialist, an old friend we've worked with for many years, staff from the hepatitis and TB hospitals, and the list goes on. They all come from different backgrounds and lives, but what they all have in common is that they suffer from chronic hepatitis B that will rob them of their life and health if not treated. Many of these patients have watched loved ones die at early ages and with great suffering from cirrhosis or liver cancer caused by this disease, and are aware of what they face if they cannot get treatment. All are people looking for hope and a future.

The project has been overwhelming in many ways, and there is still much to do to build a robust program with this complexity and need all at once. Looking at the faces of those who are sick and hearing the concerns of the doctors caring for them, we don't have the luxury of time. We must work quickly and carefully, yet God continues to provide for this work in so many ways – from unexpected donations of needed equipment, to the right people at the right time. We pray for His continued strength and for wisdom, as we carefully review test results and try to make the best possible treatment decisions in collaboration with local doctors. We also continue to do the work that is necessary to build the overall program, including preparing educational materials, patient ID cards, database development, purchasing equipment and materials, fundraising and advocacy, and recruiting committed volunteers to help build a program that brings life and hope in Jesus' name directly into the lives of many.

It has been an amazing journey thus far, and we've seen God's fingerprints at many junctures along the way, long before CFK's hepatitis engagement was even a possibility.

History of CFK's Hepatitis Work

CFK's direct involvement with hepatitis began in late 2009 when we were asked by the Ministry of Public Health (MoPH) to begin helping hepatitis treatment facilities. We had been providing assistance to many Tuberculosis (TB) facilities for years, but the Ministry said that hepatitis care centers were also under the umbrella of 'communicable diseases' and had many needs and could we please start helping these places as no one else was helping them.

CFK admittedly knew little about how to support hepatitis treatment at the time, but we agreed to visit a few places, and we began by giving general assistance – such as tractors, greenhouses, canned meat, and blankets. Before long, we learned of the need for clean water and arranged for well drilling at care centers, and completed gravity-fed solar-powered water systems at several places. New roofing and windows and doors were installed last year at the larger of the two pilot sites where this program is being rolled out. All these interventions have improved daily life for thousands of staff and patients and have helped build relationships and trust with the people at these facilities making what is truly a very sensitive, complex, and difficult project possible.



Dr. Marcia Kilsby with lab staff from the NTRL and Pyongyang #2 Hepatitis Hospital

Beginning in 2008, Dr. Marcia Kilsby of Global Care Partners began working with us, and she soon led efforts to develop hematology and chemistry diagnostic testing capability for TB patients at the National TB Reference Lab (NTRL). As part of the renovation plan for this facility, blood analysis equipment (hematology and chemistry) was purchased under her direction, and since 2008, she has made many visits to train the NTRL staff in these diagnostic methods in order to give supportive care to patients undergoing treatment for drug resistant TB. The drugs used to treat regular and drug

resistant TB can have many side effects impacting the liver, kidneys, and other body systems, and Marcia insisted that the NTRL needed to be able to support the health of the whole person and not just TB-specific diagnostics. Little did we know at the time how critical this effort would be to be able to rapidly expand treatment capability for hepatitis B patients.

In October 2013, we received an email from Dr. Alice Lee, co-founder of Hepatitis B Free (Australia), who offered her skills as a gastroenterologist and hepatologist, asking if she could be of any assistance to the work in the DPRK. She joined one of our trips in 2014 to explore with us and the Ministry of Public Health what might be possible, was able to visit all our supported hepatitis care centers with us, and asked many questions while building trust and basic relationships. Many ideas were discussed with the Ministry of Public Health on her first visit, but we jointly settled on a preliminary pilot project to vaccinate health care workers at CFK-supported hepatitis facilities. Just one year ago (May 2015), we attempted to roll out this vaccination project, but that was when we learned there would not be much traction unless treatment could be offered to those found already to be infected with hepatitis B. We then began to explore treatment possibilities for sufferers of chronic hepatitis B infection.



Susan Huntley using a fibroscan

We prepared a comprehensive hepatitis B treatment plan that we proposed to the Ministry of Public Health in August 2015 for rollout, simultaneously, in Kaesong and Pyongyang. After further negotiations, the agreement was signed in November that same year.

Hepatitis B is caused by a virus that can result in chronic inflammation of the liver. The inflammation causes scarring and disease not only of the liver but also organs upstream from the liver, including the spleen, esophagus, and the vascular system, resulting in great suffering, and premature death. While antiviral medicines have dramatically changed outcomes for hepatitis B sufferers in developed countries,

until very recently, these medicines were under patent and costs were extremely high, making it impossible to bring this medicine to developing countries like the DPRK. With the medicine recently coming off patent, generics have been developed, and the price has gone down considerably in just the last year or so. Alice approached a major drug manufacturer for a long-term donation of medicine in order to support a pilot treatment program in the DPRK, and in April, we signed a donation agreement for 500 patient's worth of generic Tenofovir to be provided on an ongoing basis. This donation forms the core of our program, and other donors have come alongside to help build out a full diagnostics and treatment program around this commitment.

Before we could initiate a treatment program, we had to identify patients infected with hepatitis B who would most benefit from the medicine and establish rigorous protocols for care. We held our first clinic in November 2015, using rapid test kits to confirm hepatitis B infection, chemistry and hematology testing (bloods) to determine the patient's overall health status, physical exams, and ultrasounds. All presenting patients were issued a patient number and photographed, and we gathered their health history. We repeated this work at another clinic held in March, seeing more patients, including some repeat patients and new patients in both Kaesong and Pyongyang. We added a donated fibroscan to the diagnostics mix for the recent clinics in May. A fibroscan is a non-invasive way of measuring the elasticity of the liver. Using ultrasound, fibroscan, hematology, immunology, and chemistry diagnostics, together with a physical examination, we have been able to identify several hundred patients – out of a pool of over 750 total patients that we have seen at the three clinics held so far – who qualify for treatment based on their clinical findings.



Blood tubes prepared for testing at the NTRL

With long-term sustainability and scalability reliant upon solid diagnostics, it became necessary to help establish laboratories at each pilot hospital site. Since both hospitals receive little power from the grid, both labs had to be designed to function largely “off grid” through solar, battery, and generator power. Both hospitals offered our team generous space for rebuilding their labs, and donors stepped up to

support renovation costs. In February, we loaded and shipped a container of building materials needed for reconstruction of the first lab, and while we were there in May, construction materials that we had ordered from China arrived just in time for our construction team (including volunteers from the US and Norway) to complete the renovation. In August, with your support, we expect to renovate the lab at the second pilot test site in Kaesong. With initial training of the staff to take place concurrently with the additional testing that will need to be done in order to start the treatment program, we hope that both labs can be fully functional by the end of this calendar year.



Installing new countertops; the director tries out clean running water at the new Pyongyang #2 Hepatitis Hospital lab

There are many miracles in this whole project. International donors have supplied beautiful new ultrasound machines and a fibroscan. Highly skilled people continue to share their time and experience. But most critically, we are finalizing the logistics now for the delivery of life-saving medicine to be carefully dispensed to hepatitis B patients based on clinical need beginning in September. While the medicine has few side effects and has proven to be highly effective in suppressing replication of the hepatitis B virus, it is not a cure in most cases. Patients must firmly commit to staying on the medicine for the rest of their lives; if they go off treatment against medical advice, they risk a hepatitis flare that can be fatal.

As we look forward to starting our first patients on drug therapy in September, we ask for your prayers for wisdom, provision of needed resources, and continued favor with local staff and officials. Many challenges arise regularly – including some that cause us great difficulty – and we need God’s wisdom and provision to navigate them while demonstrating his faithful and steadfast love. We have no strength or wisdom in and of ourselves, but we know that God “...is able to do exceeding abundantly beyond what we can ask or even imagine according to the power that works within us” (Ephesians 3:20). We trust him to show himself faithful. We look forward to reporting on the rollout of treatment later this fall and invite your prayers and strong support as we build the many pieces of this new and important initiative while also continuing ongoing support to TB care centers.

CFK Team Installs Roof Tile-Making Machine

Also, as part of the May/June visit to the DPRK, a team including two Chinese factory technicians and a multi-lingual volunteer worked with local staff to install a new roof tile-making machine requested last year by the Ministry of Public Health. Despite a lot of last-minute challenges with production delays and shipping issues, the machine and supplies arrived late Monday, May 30 on the back of a large flat-bed truck. A crane was onsite to offload the machine, assisted by more than a dozen local workers. One of the bigger challenges proved to be getting the 4+ ton machine into the building. From May 31 to June 3, the team set up the machine, connected it to a CFK-supplied power conditioner, supplied materials for a water line, and initiated production of a test run of roofing tile. A special mold was supplied with a unique identifying design for the tiles made by this machine. The roof tile-making machine will be used to supply desperately-needed roofing tile to medical care centers, including those supported by CFK. We look forward to seeing new roofs made from tile supplied by this machine and are grateful to the donors who have made this investment in future renovation projects possible.



Roof tile-making machine being installed

Returning to the DPRK

by Susan Huntley, BN

Director/ Co-Founder of Hepatitis B Free (Australia)

Director of Huntley Clinical Research Services Pty Ltd

Upon leaving Australia, I thought that there may be some issue with the travel and transit, as the preparation of getting the China visa was traumatic, with last minute deliveries on a Friday afternoon (prior to our departure early Sunday morning). However, the transit through to Pyongyang was so smooth that I could be fooled into thinking that it could be this easy every time.

Upon arrival in Pyongyang, immigration processing was quick as we only had a suitcase each. As usual, the declaration of phone and computers and check of the computer is done. Once through, the wonderful feeling of meeting the CFK team along with the DPRK guides allows me to take a deep breath and enjoy the happy feeling that rises from my chest. I remembered this time to just shake hands and bow, instead of giving all the guides a big embrace of love and affection at seeing them all again. We hopped into the bus and headed straight for Kaesong. After a 3.5 hour bus trip on a rough concrete road, we finally made it and checked into our regular digs. Morning started with devotion and breakfast, then off to Kaesong #2 Hepatitis Hospital.

With this being my fourth trip, the set-up is usually the same – getting the stations ready where patients will be seen for assessments and discussion with the doctors. There were a number of familiar faces, and this time, with their familiarity with the team, I felt a little more trust or warmth. What we take for granted in the West – information-sharing and trusted relationships with a family physician would likely be very different for them, or it might not be. I am still so ignorant about so many things of this place in the world.

The initial trickle of patients soon devolved into controlled chaos with everybody getting down to it. The scene is hard to describe – although I notice that the first day of these visits seems to always be the same, until a rhythm is underway. Almost out of control, not dissimilar to ‘we are not doing everything’ mixed with anxiety of wanting to ensure that all is covered. For me, my skills allow me to slot into just about any role needed during the course of the visit.

After a full day of clinic, the following day brought us back to Pyongyang and meeting the rest of the CFK building team who had been hard at it turning bare rooms into a first class laboratory. It looks amazing, and I recognized a few of the hospital staff – who had already put in a full day at work – head down to the lab to give



*Heidi Linton, Dr. Alice Lee, and Susan Huntley with staff
at the Pyongyang #2 Hepatitis Hospital*

assistance with the reconstruction work taking place on the first floor.

On our third day, we were allowed to take a bit of time for an early morning walk – not many people were about, so I could enjoy the scenery of the area. Going to Pyongyang #2 Hepatitis Hospital to see patients and do assessments was fulfilling and draining at the same time. The volume of people and ensuring that all assessments were completed in a timely manner proved to be a little stressful. Ever present was the prayer that all would get done in the way it was supposed to – that was a great comfort. Later that evening allowed for some reflection on the day and what was able to be achieved with what I believe is the power of prayer. The fibroscans done over the next two days were amazing, more than 200 total. The probe started to experience problems towards the end of the clinics but held up to get all but a few completed. Our final day of seeing patients was full with morning clinics, assessments, and an afternoon of meetings.

As the trip drew to a close, I marveled at how time flies when I am in DPRK. When we left on Saturday and landed in Beijing, I had the same feeling that I had after each of the last three trips – a heavy heart for leaving and feeling as though I would like to do more. The first time I felt this way, I wondered if it is the long hours in each day and short on sleep, but I now know it isn't. The experience and love that is felt for the people of the DPRK is growing in my heart with each trip, and I look forward to when I will be returning for our next mission.



Roof tile with special design made by the roof tile-making machine

Volunteers Form the Backbone of CFK's Work in the DPRK

The unsung heroes in this work are the many volunteers who cheerfully share their time and talents as members of our technical, treatment, and confirming teams. Signing up for a CFK technical team visit means long days of hard and challenging work—including lots of creative problem solving. It means sometimes crawling around in tight and dirty spaces to lay water and sewer lines, climbing up on tall ladders to wire up solar panels, cutting countertops amid clouds of fine dust, assembling thousands of parts and screws and hinges into Ikea cabinets, or staying up late into the night to review and enter patient records in time for clinic the next day. CFK volunteers pay their own travel expenses and/or ask their churches and friends to pray for and support their travel with us – our teams usually are multigenerational and multinational and include both highly skilled people and less skilled “helpers”.

Together, we become brothers and sisters in Christ in North Korea and begin each day by reading the Word, praying, and sharing together. There is a lot of fun banter back and forth

between our team and our local co-workers, and many skills are shared in the process. We simply could not complete the work we do in North Korea without our volunteers and our local North Korean colleagues and counterparts – many of whom are doctors/nurses in the care centers who work with us in the clinics and join the renovation work – and we are grateful to God for His provision of each and every one. We hope to establish a “scholarship fund” to help those from our side of the team who have skills and time, but have a difficult time raising travel funds to participate on these kinds of visits. We welcome your ongoing support for this fund.

CFK Receives Many Visitors

We are also grateful for our small but hardworking staff in North Carolina and the many visitors that stop by our office in Black Mountain. Many have given their time and talents through volunteering, and it is a privilege to share with each visitor what God is doing in and through the work of CFK. As we look forward to a busy summer in preparation for our fall visits and work, we ask for your continued support and prayers for the people of the DPRK and for our work among them.



A group from The Lord's Greater Church of Greensboro, NC recently volunteered at CFK's office in Black Mountain



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