

CARL DUISBERG SCHOLARSHIP FOR OPHTHALMOLOGIST

Saving vision

Dr. Munjid Al Mousa wants to prevent people from losing their sight. Since February 2015, he has been at the University of Frankfurt researching retinal diseases, especially diabetic retinopathy, a disease frequently associated with diabetes which, in its most severe form, leads to blindness. The main objective of the ophthalmologist from Jordan is to help people in developing countries.



Regular eye check-ups: diabetics have an elevated risk of an eye disease. Dr. Munjid Al Mousa (photo right) can detect even minimal damage to the retina and then treat it during a routine check-up. The ophthalmologist wants to help people in developing countries.

What exactly happens to patients suffering from diabetic retinopathy?

The inside of our eye is lined with nerve tissue, the retina. The nerve cells conduct signals via the optic nerve to the brain. If the retina is damaged, the image we see with the eye can no longer be transmitted to the brain, which is what happens in the case of diabetic retinopathy. Normally the nerve tissue is filled with blood vessels that supply it with both nutrients and oxygen. But if you have diabetes, the retina can no longer be adequately supplied. As a result, the eye emits a messenger substance that stimulates the production of new blood vessels. These blood vessels, however, are fragile and bleed easily, leading to loss of vision. But the patient feels no pain, meaning that the retina can sustain extensive damage over several months or even years without it even being noticed.

What can be done to prevent it?

Diabetic retinopathy develops very differently from one patient to another. In early stages it needs only monitoring and regular check-ups. In more advanced stages, we may need to perform some laser sessions to the retina, in order to prevent bleeding from happening. In very advanced stages, more sophisticated surgical procedures are required. Generally speaking, it is advantageous when diabetes is diagnosed as early as possible and the blood sugar level regulated as necessary from then on. Even if diabetics have no difficulties with their eyes, they should still have their eyes tested at least once a year.

How is diabetes related to blindness?

Diabetes is a metabolic disorder that can be caused by genetic factors or promoted by environmental influences, such as a poor diet and a lack of exercise. If you have diabetes, it can sometimes lead to an eye disease called diabetic retinopathy which, in the worst case, can cause patients to lose their eyesight. An eye doctor can prevent this kind of blindness if the patient presents early, but many diabetics are unaware of the risk and by the time they come to us it's too late. Some patients are not even aware that they have diabetes, because not all of them have symptoms.

Why is this condition such a major problem in Jordan?

My home country has one of the highest rates of diabetes in the world. I have met many patients there suffering from this eye disease and was very moved by their stories. Blind people have a particularly hard time in developing countries: many of them are not integrated into the working world and are therefore totally dependent on their families for financial support and medical treatment, essentially for their entire daily lives. I hope to be able to help people in developing countries and to prevent them from losing their eyesight.

What other plans do you have for the future?

I would like to learn as much as I can here at the University of Frankfurt. I am participating in clinical work with patients and in scientific studies. Professor Frank Koch is also teaching me surgical methods. Everything I learn here I would like to practice at home in Jordan one day. Thanks to my scholarship, I hope I will be able to help a lot of people by protecting them against blindness, and I can pass on what I have learned to doctors in other developing countries. That idea motivates me every day. And though there's a lot to do, my work is fulfilling and rewarding in new ways every day. My biggest goal is to raise awareness of diabetic retinopathy in developing countries. ■