



# Healthcare Guide

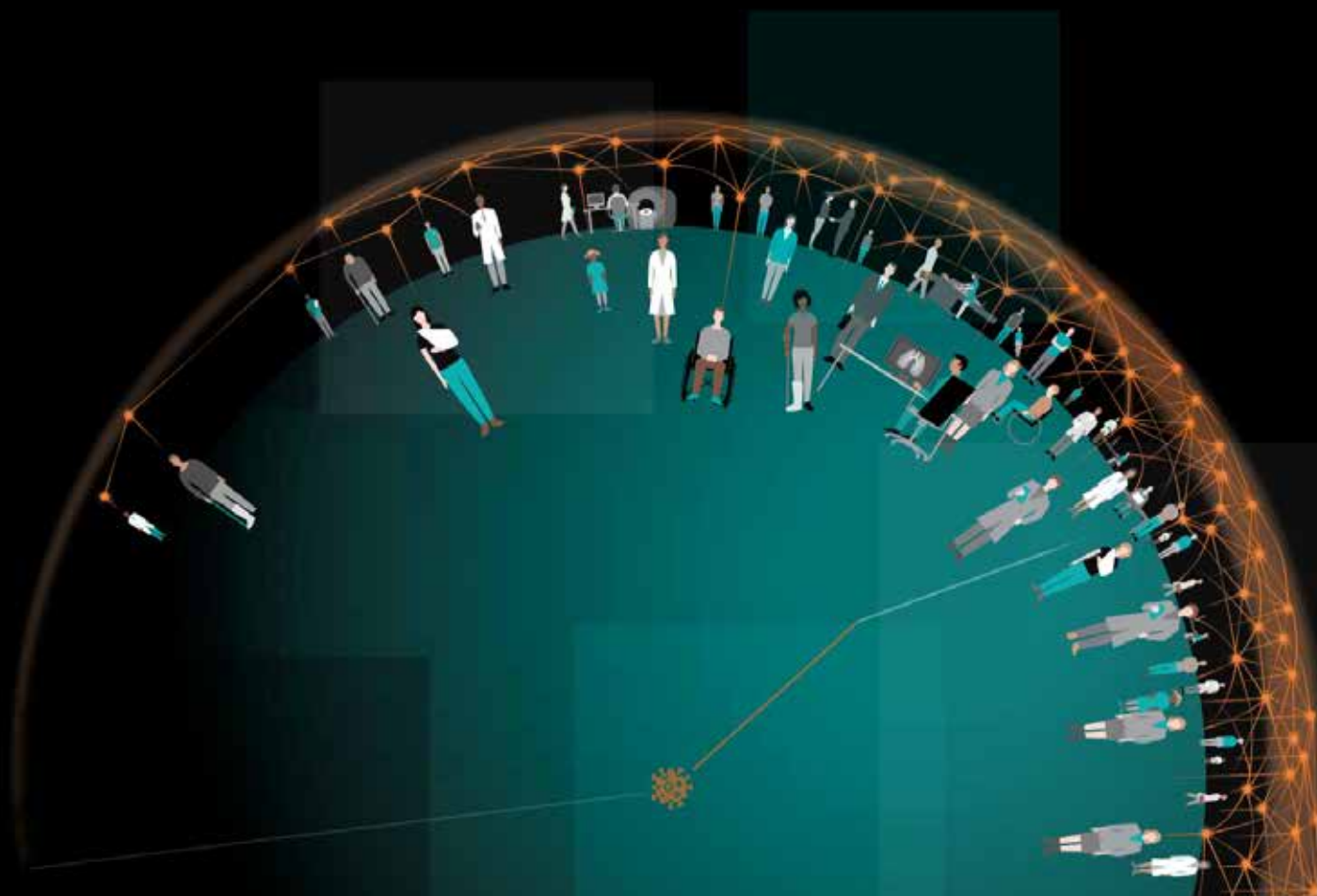
2021

*Partnerships and Perspectives of  
Arab-German Cooperation*

[www.ghorfa.de](http://www.ghorfa.de)

# Turning data into value

Siemens Healthineers eHealth solution for  
population health management *[page 19]*



# Healthcare Guide 2021

Partnerships and Perspectives of  
Arab-German Cooperation



## WE PROTECT AND IMPROVE THE HEALTH OF PEOPLE AROUND THE WORLD.

Effective solutions begin with passion. And the willingness to face tasks. Through constructive exchange with our customers and partners. A philosophy that moves us. That inspires us. And drives us. Every day. To find solutions that are both evolving and progressive. To improve people's lives. Now, and in the future.



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# Preface

The highly innovative health industry in Germany is well known as a major hub for medical technology, medical treatment & tourism, and the pharma industry. The seventh edition of the "Healthcare Guide" highlights the great interest in the healthcare industry from both German and Arab perspectives and pinpoints outstanding Arab-German projects.

After one and a half years, Covid-19 is still a major challenge for the healthcare sectors around the world. A stable healthcare system, decisive actions by governments and decision-makers including comprehensive planning and the involvement of the population have proven to be key factors in the successful fight against Covid-19.

The development of an efficient healthcare system - characterised by a successful vaccination strategy, state-of-the-art medical technology and adequate medical care - is one of the most important priorities for the Arab world and has turned out to be crucial for the future, especially against the background of the current pandemic.

Thus, knowledge transfer and expertise from German companies and institutions are highly appreciated, whether by establishing factories, introducing innovative planning and managing of facilities or by the structured cooperation in regards to the training of qualified personnel. This creates enormous opportunities for cooperation between Arab and German companies and institutions and opens new horizons to deepen the relations.

The healthcare industry has a considerable economic significance for Germany, with more than 7.3 million employees, around 12 % of its GDP and exports exceeding over EUR 126 billion. Furthermore, integrating multiple disciplines and branches that are important for Arab-German business relations. The increasing attention for cooperation is also reflected by the success of the Arab-German Health Forum, which is organized by the Ghorfa for the 14th time this year.

The Ghorfa Arab-German Chamber of Commerce and Industry has a powerful network consisting of both institutional and entrepreneurial decision-makers from Arab countries and Germany. As the competence centre for business relations between Germany and the Arab world, Ghorfa promotes and strengthens business relations between Germany and the Arab countries in the fields of trade, industry, finance, and investment.

We would like to thank the numerous German companies for their valuable contributions, Ms. Nancy Ishak for her commitment and dedication to the publication, as well as Mr. Fadhl Al-Romaima for layout and design. We hope you enjoy reading this book and wish you inspiration for further reference projects.



**Dr. Peter Ramsauer**  
*President  
Federal Minister ret.*



**Abdulaziz Al-Mikhlaifi**  
*Secretary General*



**Dr. Peter Ramsauer**



**Abdulaziz Al-Mikhlaifi**





## Research & Development



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## Enabling healthcare institutions to establish innovative and sustainable infrastructures

### Siemens Healthineers AG

Today's healthcare industry requires answers to highly complex challenges. Besides generic solutions in e.g. digitalization and automation, healthcare institutions around the globe - more than ever before - are feeling the necessity and requirement to locally establish their own innovative structures in order to find solutions, tailored to their patients needs. Specific patient-pathway oriented improvements support institutions in optimizing both patient experience as well as process and workflow efficiency.

Siemens Healthineers has the vision to shape the future of healthcare and continues to strengthen efforts and investments into innovation, research & development. Supporting our customers and partnering healthcare institutions is key to a successful contribution to our mission.

Therefore, now and in future, one of the main building blocks for a sustainable and progressive healthcare industry will be to empower our partners to re-invent themselves and to enable them to find customized solutions to their challenging problems.





*“Innovation is the driver for advancing human health. As an organization, we invest heavily into R&D and, as a matter of fact, we see innovation as part of our corporate DNA. The Middle East & Africa is growing and developing as a market and this fosters innovation and advancement.”*

Ole Per Maloy, Managing Director Siemens Healthineers Middle East and Southern & Eastern Africa

Therefore, now and in future, one of the main building blocks for a sustainable and progressive healthcare industry will be to empower our partners to re-invent themselves and to enable them to find customized solutions to their challenging problems.

Serving this purpose, the company’s Innovation Think Tank program (ITT) has been established in 2005 by Prof. Sultan Haider, empowering partner institutions to create self-sustaining infrastructures and proactively drive innovation to improve human life. Until 2021, Innovation Think Tank, in collaboration with our partnering institutions, has estab-

lished 56 activity locations, consisting of ITT laboratories and certification programs. It is also responsible for more than 2,500 product definition, R&D and strategy projects and continues to offer 200 ITT fellowships annually to program participants from so far over 150 universities in 38 countries.

As of today and on invitation to Prof. Haider, Innovation Think Tank has established a global infrastructure of co-creation labs and programs at prestigious universities and hospitals worldwide.

*“The Innovation Think Tank enables Healthcare providers to establish their own innovation infrastructure to address their local project requirements.*

*I am glad to be part of our engagements with some of the key healthcare insitutions in the Middle East, setting up ITTs and connecting them to our global locations.”*

Prof. Sultan Haider, Founder and Global Head of ITT, Siemens Healthineers





ITT Laboratory set-up © Siemens Healthineers AG

## Innovation at the heart of healthcare

Healthcare providers today require specifically tailored answers to their day-to-day challenges to be able to be proactive in adapting to patients changing needs and in increasing patient satisfaction in a highly competitive landscape. In addition and more related to commercial success of the institutions, there is a need to target internal inefficiencies and exploit optimization potential in their workflow. Therefore, innovation has to happen at the heart of healthcare, inside the institutions. The Innovation Think Tank program offers partners the opportunity, to establish an owned innovation infrastructure to address these local requirements. The localized ITT serves as a booster in research & innovation and enables international research via grant application. By providing access to ITT global network, partnering institutions are also able to enhance their institutional branding and reputation.

As a key to the future of healthcare, innovation is not only happening in the hospitals and clinics, but finds its very base in educational institutions and research organisations. Together with Siemens Healthineers and within the ITT programs, these institutions are tackling more general but significant challenges which concern the entire healthcare

industry. Our collaborations with universities across the globe are designed to find solutions across topics like automation, digitalization, hospital of the future, disease pathways optimization etc.

Partnering with universities and healthcare institutions, Innovation Think Tank utilizes its global self-sustaining infrastructures to accelerate identifying and implementing new business opportunities.

## People are the key

Innovation Think Tank's Certification Program (ITT CP) implements and offers focused learning modules to students and researchers, fostering an innovative mindset and paving the way for current and future professionals to successfully design and improve the future of healthcare. In targeted educational modules called "Experiential Innovation Learning", participants are being prepared to tackle real life cross-disciplinary cases and to find practical solutions to recurring but significant problems of the industry. Innovation Think Tank awards fellowships for outstanding ideas and innovations, providing awarded participants with opportunities to work at its various global locations on R&D and innovation projects.



“Experiential Innovation Learning” training module © Siemens Healthineers AG

The most promising projects are being awarded and the teams are invited to the Annual External Innovation Think Tank Exhibition at Siemens Healthineers Headquarters in Erlangen, Germany. The event focuses on open innovation, co-creation and disruptive innovations in healthcare and brings together key stakeholders such as hospitals, research institutions, universities, start-ups and venture capitals.

### Impact in the Arab world

Innovation Think Tank Certification Programs and Labs are currently active in the United Arab Emirates, Saudi

Arabia and Egypt, focusing specifically on the key healthcare challenges in the region. So far, 6 ITT Certification Programs have been organized in these countries, including 230+ participants (students, researchers and healthcare professionals), 30+ Key Opinion Leaders engaging with 50+ institutions.

One of the dedicated project work streams for the region enabled stakeholders in healthcare to identify and visualize the most prominent diseases in the respective country and find optimization potential and applicable solutions along the clinical pathway. Pathways identified were address-

ITT Certification Program, UAE, 2019 © Siemens Healthineers AG



*“Our first ITT collaboration in UAE started with the New York University in Abu Dhabi, where participants could access the universities’ labs for creating tangible prototypes, addressing healthcare challenges. In addition, in 2020, ITT also supported two grants applications from New York University for research on brain diseases.”*

Ole Per Maloy, Managing Director Siemens Healthineers Middle East and Southern & Eastern Africa

ing diabetes, stroke, coronary artery disease, lung cancer, chronic kidney diseases but also discussed polycystic ovary syndrome and mental health. The other program work stream covered topics such as biomedical innovation and business models for the “Healthcare system of the future in the Arab World”. Innovation Think Tank is also partnering with key institutions in the Arab World to expand the innovation infrastructure in the region and to enable host institutions to cater for international research capabilities and expertise development in a sustainable way.

#### **Some of the key Innovation Think Tank partnerships and engagements in the Arab world:**

- New York University, Abu Dhabi (NYU AD): Following the visit of New York University Abu Dhabi team to Siemens Healthineers Innovation Think Tank HQ in Erlangen, Germany in 2019, an invitation was sent to Prof. Haider for establishing an ITT Certification program. In 2020, two programs were hosted by NYU AD and Prof. Haider was invited to be the member of Scientific Advisory Board at the Center for BioInnovation and Health of NYU AD. This year, Siemens Healthineers Saudi Arabia and Egypt also institutionalized Innovation Think Tank.

- Fakeeh University Hospital (FUH), Dubai: From co-creation engagements to creating own innovation infrastructure. Fakeeh University Hospital will be implementing Middle East’s first Innovation Think Tank Lab at its hospital premises. The focus of the ITT FUH will be on enhancing patient experience, operational workflow and disease pathway optimization.

- Khalifa University Hospital, Abu Dhabi: Khalifa University have officially invited Prof. Sultan Haider to be a member of organizing committee of IEEE International Symposium on Biomedical Imaging (ISBI) 2023 and to organize Innovation Think Tank Certification Program prior to this symposium. The bid is being submitted by Khalifa University in collaboration with the Abu Dhabi Convention Bureau (Department of Culture and Tourism) and the Abu Dhabi National Exhibition Centre.

- The programs are always supported by Key Opinion Leaders from respective countries, representing e.g. Ministries of Health or hospital and university management. They will provide insights on challenges to the local healthcare sector and highlight their perspective on the future of healthcare in the region.





ITT Certification Program, UAE, 2019 © Siemens Healthineers AG

Given the challenging times and the need to act proactive in addressing current and future patient needs, Siemens Healthineers AG is well aware of its position and responsibility in the industry and will continue to foster innovation

in healthcare institutions and support aspiring talents and professionals in their endeavours to make a positive impact on the industry in a sustainable way.

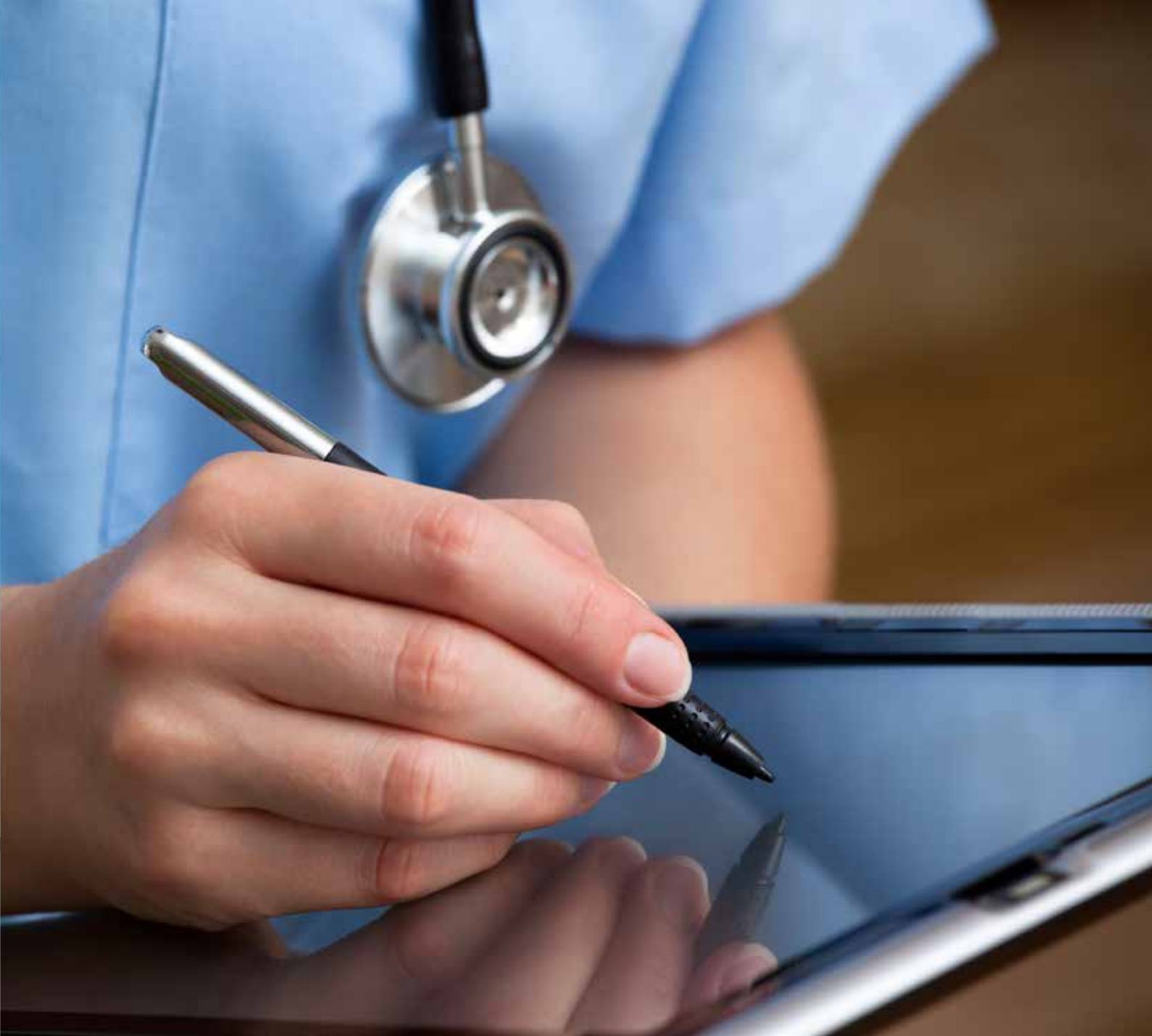
*"I think it's very important to understand that industries, hospitals and educational institutions should be working together to identify and address current healthcare challenges. I find it impressive, that the various Innovation Think Tank teams have put together information on different disease pathways. This is an excellent example of how the ITT teams are contributing to the various healthcare challenges also in these difficult times."*



Dr. Fatih Mehmet Gul, MD, Chief Executive Officer at Fakeeh University Hospital, Speech during eITT 2020







## Medical IT & Communication Solutions



© Kai Abresch

# Digital pathology: Expertise is not a question of location

## Sana Hospital Group

Sana Hospital Group is a top 3 German hospital group of 56 world-class, award-winning private hospitals, outpatient and diagnostic centers spread across Germany. In centers of excellence for e.g. Orthopedics and Spine, Neurology, Cardiology, Cardiovascular Surgery, Bariatrics and Pediatrics, highly decorated doctors - among them numerous professors at German universities - offer world-class medicine to German and international patients. Major hospitals are located in the areas of Berlin, Munich, Frankfurt and Düsseldorf/ Cologne, among others. Constantly striving to improve patients' and their families' lives, Sana hospitals continue to stand out through medical excellence, use of latest technology and the human touch that is essential to any healing. Sana Hospital Group is owned by the 25 leading German private health insurance companies, including Alliance Insurance Group, DKV and Signal Iduna.

The digitisation of medicine is advancing at a rapid pace. The fact that technological advances bring about a great

deal of potential, including to the work of pathologists – master cutters and patient's advocates – is beyond dispute.

They scrutinise the physicians' presumptive diagnoses both critically and rationally and share one essential characteristic: a healthy degree of scepticism regarding first impressions.

A pathologist's work focusses on diagnosing living patients. For many patients, histopathological diagnoses are crucial in deciding how to proceed and what therapy should be initiated. This is particularly relevant when treating patients whose malignant tumour diagnosis typically requires a histopathological confirmation and tissue typing. For example, when a liver spot is removed by a doctor it is the pathologist's job to examine it to ascertain if the underlying cause of the skin lesion could be a malignant tumour. Tissue specimens obtained during an endoscopy, for example, reveal whether the patient has a benign gastric ulcer that could be treated with tablets or whether the tumour must be removed if the patient is to be cured. Virtually every diagnosis of a benign or malignant tumour is made by pathologists. When using a microscope it is not only possible to ascertain what type of cancer the patient has, but also how aggressively the tumour is growing, how likely it is to spread and form metastases and what type of treatment is most suitable.

### Digitised dissections of life

The preparation of histological cut specimens involves a full chain of laboratory steps: Fixing the tissue in the macro laboratory, preparation for sectioning (i.e. selecting which tissue sections are to be examined) and the embedding in paraffin. Within the histological cut, sections of 1 to 2 µm "thickness" are prepared for assessment. In order to make the tissue visible, the cut specimens must be stained. Digitisation of these procedures means that the cut specimens received for the purpose of appraisal will be scanned. Sana now has powerful high volume scanners at its disposal which allow histological cut specimens to be digitised quickly. These scanners produce an image resolution of approximately 101,000 dpi and are able to scan at a resolution of four pixels for every µm. Every scanned slide produces approximately 10 GB of data which can be condensed

further to between 1.2 and 1.5 GB. Bearing in mind that a scanner has the capacity to scan 300 slides per run in quick succession, it becomes obvious that data can amass very quickly. In order to transfer such large volumes of data from A to B as rapidly as possible, Sana has set up a powerful network to which every hospital is connected. Sana's system routinely runs through the night.

Images of slides scanned in this way are processed by an image management system connected to a "pathology information system" via an interface. Both systems are embedded in the hospital's IT systems allowing them to integrate smoothly into the day-to-day routine of the hospital. In order to achieve this, all digital interfaces must be optimally aligned and all of the team's procedures must be comprehensively tested.

Specimens digitised by Sana Hospital Lichtenberg using this method can prove particularly beneficial in the following two scenarios: If, as part of the tumour diagnosis, an additional analysis is required for a definitive diagnosis which goes beyond the conventional cut. Such as when using antibodies in immunohistochemical analyses to identify highly specific tissue structures. Another oncological application is in measuring the size or distance of the tumour from the resection margin. Doing this digitally on a screen is considerably easier than looking through an analogue microscope.

Digital pathology also has the added advantage that expertise is no longer dependent on location. If the relevant pathologist happens to be on holiday or is not available due to quarantine restrictions – the current Corona pandemic has shown us that this scenario can occur quickly and unexpectedly – then the tissue samples can be sent to another hospital for appraisal following the preparation of the cut tissue specimens. Following this approach means that getting a second opinion or making a comprehensive assessment of the specimen(s) within multidisciplinary tumour team meetings has been simplified considerably because the slides have been digitised.



## Additional potential developments thanks to Artificial Intelligence

Looking into the future it is clear that digital technology is pointing the way to a whole range of potential new developments. This is particularly so when taking into account that ever increasing role of Artificial Intelligence. AI will offer particular support to pathologists in providing patients with a precise diagnosis and improving the medical care of cancer patients. As mentioned earlier, pathologists play a critical role in detecting and diagnosing medical conditions, and their appraisals are vital for oncologists when deciding on the correct course of treatment. However, the rise in the number of cancer patients and the advancements being made in personalised medicine have contributed to a markedly increased and complex diagnostic workload for pathologists. It is because of this that pathology institutes have introduced digital solutions and are now in a position to implement AI-based workflows to further improve the quality and efficiency of cancer diagnoses leading to improved patient care.

Sana Hospital Lichtenberg runs the largest certified bowel cancer centre in Berlin and the surrounding area as well as certified cancer centres for pancreatic, stomach, breast and gynaecological cancers. The pathologists working in these centres are now evaluating the clinical impact of the application of AI in the diagnosis of different procedures. They are already leading pioneers in the introduction of digital pathology in Germany and are proud to belong to one of the first laboratories in the country using Artificial Intelligence in routine diagnostic planning.



Sven Heininger  
*Director International*

Sana Hospital Group

© Kai Abresch





# Connecting care team and patients



## Population Health Management

Our eHealth Solutions help create healthcare networks and connect healthcare providers to facilitate successful collaborations.

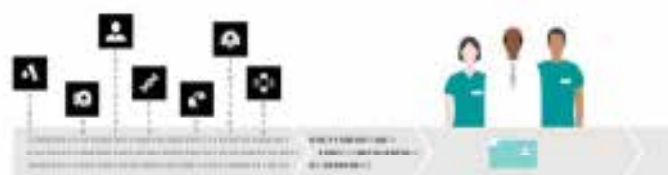
We make comprehensive medical data accessible to you, your patients, and all health professionals involved, no matter when or where they want to access the data. Lack of communication, increasing data complexity and coordination efforts, and insufficient documentation are pain points for stakeholders involved in a healthcare process.

With fast and easy data-sharing, our eHealth Solutions foster collaboration among healthcare providers while enabling you to improve patient outcomes and increase patient safety. Improved data transparency also helps you avoid unnecessary costs created by duplicate examinations and extra administrative effort and supports you in optimizing resources that may otherwise be tied up in fragmented IT and infrastructure maintenance.

By supporting relevant interoperability standards, our eHealth Solutions offer a solid, sustainable, and scalable platform that connects isolated data from different healthcare providers. Additional applications allow your care teams to deliver comprehensive and cooperative care. These applications include mobile, Web-based, and complete infrastructure workflow solutions.

For more details, please contact our team on:

[ahmed.ibrhim@siemens-healthineers.com](mailto:ahmed.ibrhim@siemens-healthineers.com)









Covid-19



Kliniken Schmieder in Allensbach, with 315 beds, is one of the largest clinics in the group © Kliniken Schmieder

## Long COVID – the long shadow of a disease

### Kliniken Schmieder

The Kliniken Schmieder combine university research and innovative therapeutic approaches with the experience of more than 70 years in neurological rehabilitation. Annually about 14,000 patients from all over the world entrust their health to the experts of the group. In this tradition, the Kliniken Schmieder cooperate with various national and international institutions and experts to stay ahead by continuously improving the quality of rehabilitation.

How the Kliniken Schmieder use their Post-COVID-19 Rehabilitation programme to help patients cope with the effects of a coronavirus infection.

Ever since the world was forced to deal with the effects of the coronavirus pandemic, life has not been the same. One single disease has, as vigorously as never before, attracted public attention, and fighting the virus has engrossed world politics and the lives of many people since early 2020.

It all happened very quickly: a few days after onset of her first symptoms, Dagmar Klünder was in a coma – for weeks.

The number of infected people in the world has reached approx 185 million and almost four million people have died from the sequelae of their coronavirus infection. Patients like Dagmar Klünder, who received rehabilitation treatment at the Kiniken Schmieder in Heidelberg from

March to June 2021, have overcome the acute stage of the disease but the effects of COVID-19 are far from over. It has become obvious that even those who survived the infection or hardly experienced any symptoms may still need to fight the effects of the infection long after they were free from the virus.

During the past months, experts often discussed the best name for this phenomenon. “Long COVID” has now gained acceptance in public. According to the British Medical Journal, long COVID describes both the various symptoms and diseases of people who were so seriously ill that they required hospitalisation and the symptoms of people with a mild course. In both cases, patients report that they still experience persistent effects of the infection weeks or even months after their illness. This definition makes clear that anyone can be affected who was infected with the coronavirus.

“Prior to my illness I loved bananas but now I find them disgusting.”

The people most affected are usually patients who were seriously ill and required hospitalisation or even artificial ventilation. Four out of five of these patients sometimes report chronic exhaustion, also called fatigue, concomitant neurological symptoms or shortness of breath even months after their discharge from the hospital. But experts also observe an increasing number of symptoms such as persistent exhaustion, depression, gustatory dysfunctions or cognitive impairments even in supposedly mild cases. The evaluation of a study at King’s College London showed that from 4,182 people who participated in an on-line survey, more than 25 percent of the respondents reported one or more long-COVID symptoms four weeks to more than three months after their infection.

Supporting patients on their path to the fullest possible recovery © Kliniken Schmieder





## Kliniken Schmieder – Never give up!

- Est. in 1950 – Pioneers of neurological rehabilitation
- Six clinics and 14,000 patients with all degrees of severity
- Provably highest certified quality
- In-house research institute for continuous development

### Surge of new healthcare challenges

Figures from Switzerland point in the same direction. In Switzerland, long-COVID symptoms were detected in one third of the non-hospitalised patients. Considering these figures, it can be assumed that there is a large number of patients requiring rehabilitation whose symptoms must first be identified as such, taken seriously and then be treated, if these patients and society as a whole want to overcome this pandemic completely. Institutions for neurological rehabilitation that have the necessary expertise to face this challenge will play an important role in this process.

### What do these patients need?

There is currently not much robust scientific evidence but the symptoms associated with the effects of an infection are not unknown because they are very similar to those that are seen by e.g. the Kliniken Schmieder in patients who had a stroke, an accident or who suffer from chronic neurological disorders. They include motor and cognitive impairments, nerve and muscle pain, olfactory and gustatory dysfunctions.

Since the summer of 2020, the number of enquiries related to coronavirus infections has noticeably increased. More and more people suffering from long COVID are identified as such and seek adequate assistance. "We have the necessary expertise, and we knew that we wanted to contribute to a solution to this crisis," said Paul-Georg Friedrich, chairman of the Management Team of the Kliniken Schmieder. Together with its own medical, nursing and therapeutic experts, the Kliniken Schmieder have acted and offer the Post-COVID-19 Rehabilitation programme since early 2021. "The many decades of experience in neurological rehabilitation have enabled us to implement a concept which ensures high-quality neurological after-care of the patients," Friedrich continued.

Kliniken Schmieder encourage their patients to „Never give up!“ © Kliniken Schmieder



## Goals of the Post-COVID-19 Rehab

- Improvement of respiratory function and lung volume
- Improvement of motor deficits and endurance
- Improvement of cognitive deficits and endurance
- Improvement of general fitness

In view of the various individual courses of illness, the rehabilitation measures are tailored to each patient and his/her needs. An individual treatment plan is made up reflecting what the patient needs. Involving different medical and therapeutic specialties ensures integrated consideration of all treatment aspects needed to optimally address the neurological, pulmonary and psychotherapeutic issues. This way, an interdisciplinary team can make its specific contribution to improve the patient's physical and psychological health status.

## Evaluation of long-term effects

As with many other acute or chronic neurological disorders, access to timely and, above all, adequate treatment is the main criterion for successful rehabilitation. The earlier the patients receive help, the better late effects of the disease can be relieved or even reversed so that the patient is able to e.g. return to his working life. This is definitely needed after this crisis. The Kliniken Schmieder have started research also in this regard. At our in-house research institute, the Lurija Institut ([www.lurija-institut.de](http://www.lurija-institut.de)), scientists are developing preliminary ideas for research projects dealing with the long-term effects and the best ways to address them. The regular research colloquia of the Lurija Institut offer a platform for experts to share their views, e.g. about the optimisation of the COVID-19 treatment, and their knowledge of the course of the disease. To this aim, the experts at the Kliniken Schmieder are in close contact with German university medical centres and international experts.



Exercise and commitment are key to improving patients health © Kliniken Schmieder



Stefan Boeckle  
*Director International  
Relations*

Kliniken Schmieder







## Healthcare Tourism



visitBerlin © Wolfgang Scholvien

# The benefits of telemedicine for international patients

## visitBerlin

Since 2010 the official marketing agency of Berlin is actively engaged in promoting health and medical tourism to Berlin. visitBerlin aims to further strengthen Berlin's profile as "Europe's Health Capital" and cooperates with a network of partners that include representatives of Berlin's medical providers, accommodation, trade and tourism sectors. 2020 the marketing initiative "Berlin Health Excellence" was established.

During the Covid-19 pandemic, the benefits of e-health in a broader sense, as well as telehealth or telemedicine in specific became apparent. So far, a hotly debated issue in the German health care system, video consultations with the general practitioner and receiving digital prescriptions became the new normal to reduce physical contact

and to counteract the pandemic. While e-health encompasses diverse tools such as electronic health records, e-prescriptions, telesurgery, wearables to monitor vital signals etc., telemedicine refers to the distribution of health-related services and information between doctor and patient via electronic information systems.



In a globally connected world and often due to the discrepancies of the different national health care systems, some patients seek medical treatment outside their home country. With informative websites and international services of the hospitals, it became much easier to find the right doctor in Germany or other countries. Handling international patients' inquiries somehow always included a telemedical component: By electronically sending a patient's record, maybe attaching MRI records and uploading them in a hospital's electronic system, geographic distance was overcome and a doctor's second medical opinion was communicated over a long distance.

The new quality in pandemic times however is the use of digital technologies as a matter of fact, most evident in the case of video consultations between doctor and patient. Today a German hospital or doctor's office can choose from several certified video service platforms and integrate them into their digital habitat. These platforms enable international patients to interact much earlier with the doctor of their choice, trust can be built before an often-strenuous journey, questions and concerns from the patient can be raised and the doctor can respond to the understandably often high expectations at an earlier point.

There are various reasons for a patient to seek telemedical support across borders: Maybe a specific surgery was recommended or a serious illness is diagnosed and the patient is hesitant and wondering if another treatment option might be available abroad. When asking for telemedical support, sometimes a simple confirmation from an internationally renowned specialist can ease and eliminate the patient's doubts and uncertainty. In some cases, the specialist abroad may indicate different or alternative diagnostic and treatment options. In the context of medical travel, telemedical service can help a patient in making an informed decision to travel or not to travel abroad for medical treatment.

Several German medical providers today offer video consultations for international patients. The patient gets into contact with the international office of the hospital, providing up-to-date medical reports and forwarding questions and any relevant additional information. The international office then arranges the video consultation on the hospital's platform. Before the appointment, a prepayment has to be made. In case of language barriers, the patient should inquire if there is an interpreter service available at the hospital.

The other scenario involves the video consultation as a follow-up: For example: after successfully undergoing

© Fotolia-VILevi



surgery and travelling back to his or her home country the patient can be seen by the doctor – bridging the long distance. The doctor can inquire about the healing process and give helpful advice to the patient. Telemedicine therefore can positively complement the medical care chain in a patient's journey: Prior and after discharge or for a one-time appointment only, the international patient benefits from the doctor's expertise, giving his/her health and cure the highest priority.

On the multilingual website of the Berlin hospitals, operated by visitBerlin, patients can inquire about several telemedical services, such as a cost estimate for a specific inquiry, issuing a second medical opinion, arranging a doctor-to-doctor call, or arranging a video consultation. The Berlin chief physicians and specialists are highly qualified and often internationally renowned experts in their specific fields. They have many years of experience and are up-to-date in applying international standards and the newest procedures. The website, which is also completely available in Arabic, hosts the detailed profiles

of 128 medical experts, and the symbol of a video camera shows which doctor is available for a video consultation for international patients.

For more information:

[www.berlin-health-excellence.com/telemedicine](http://www.berlin-health-excellence.com/telemedicine)

[www.berlin-health-excellence.com/  
chief-physicians-and-specialists-berlins-hospitals](http://www.berlin-health-excellence.com/chief-physicians-and-specialists-berlins-hospitals)

[www.about.visitberlin.de/berlin-health-excellence-0](http://www.about.visitberlin.de/berlin-health-excellence-0)



Michaela Kehrer  
*Marktmanagement  
Project Manager / Medical  
Tourism Manager*

visitBerlin

visitBerlin © Dagmar Schwelle





© Hospitality Visions Lake Lucerne AG

## cereneo – the center for neurology & rehabilitation – offers neurological rehabilitation and recovery based on the latest research

### cereneo

cereneo is one of the world's leading centres for neurorehabilitation with two clinics located at the beautiful shore of Lake Lucerne. Our goal at cereneo is to lead patients back to an independent life. This is often a very challenging and long process which cannot be fully accomplished during an inpatient stay. Therefore, the cereneo team has developed a unique concept to help patients along their entire recovery process beyond their inpatient stay to ensure a seamless support from intense and highly personalised therapy in our rehabilitation clinic, over therapy at home to telerehabilitation. This approach is geared to enable patients taking their health and recovery into their own hands, to provide tools and ideas to self-manage rehabilitation in daily life settings and to ultimately empower individuals to take ownership of their lives again. By continuously monitoring the progress of patients using sensory equipment, we are able to quickly adapt treatment measures to ensure fast recovery and to shorten the time in hospital.

A crucial factor at cereneo is to involve the relatives of patients into the recovery process, thus creating a familiar and trustful atmosphere to optimise the success of the treatments.

A personal and empathic setting, where patients feel taken care of is equally important. The interdisciplinary team works hand in hand to ensure a tailor-made therapy match-



ing the individual needs of each patient to ensure fast progress in recovery. The treatment successes motivate not only the cereneo team every day, but also patients and their family members, which is a decisive component in the recovery process.

### Continuous rehabilitation as a key success factor

Continuous rehabilitation is clearly a key success factor in the recovery journey of each patient. To get the best rehabilitation, it is crucial to start as fast as possible with a tailor-made, intensive and empathic training in order to achieve maximum recovery. We have realised that patients often struggle to find a good rehabilitation support after the stay in a clinic. To offer patients our help in the transition phase from any rehabilitation centre to their homes, support relatives and family members during this difficult time and train with the patient at home, we have established the cereneo@home offering. Experienced cereneo therapists travel with the patients to their homes, train local support teams to continue the therapy and guide family members and patients through all the difficult decisions they need to make. With increasing progress of the patients, the at home support can be substituted by teletherapy via digital channels. This will give patients more flexibility while getting continuous support on their way to a normal life.

cereneo telerehabilitation provides patients with a comprehensive neurorehabilitation programme covering all aspects

of neurorehabilitation. The focus is on speech and language, movement and cognitive therapy, regular assessments of the progress and consultations with a neurologist. Nutritional counselling can be integrated when needed. The service is complemented by digital training and measurement devices that will assist our patients to assess their daily personal challenges, train and show them their progress. Telerehabilitation can easily be integrated into daily routine.

### Highly qualified professionals and cutting edge equipment

Thanks to the highly qualified medical team under the management of Prof. Dr. Andreas Luft and the state-of-the-art equipment, with robot-assisted treatment, electrical stimulation, neuronavigation, encephalography, magnetic resonance imaging, transcranial magnetic and 3-D movement and strength analysis, as well as telemetric electromyography, the cereneo clinics are among the leading centres in the field of neurorehabilitation.

### The peaceful clinic surrounding has a positive effect on the recovery process

The surrounding area of the two rehabilitation clinics directly on Lake Lucerne surrounded by the Swiss Alps is absolutely beautiful. We often get the feedback from patients and relatives that the vicinity has a very positive impact on the recovery. The peaceful and quiet atmosphere grounds the patients and at the same time spends energy







© cereneo Schweiz AG

and strength, which has a very positive impact on the success of the rehabilitation.

With our two locations with only 12 beds in Vitznau and 23 beds in Hertenstein, the clinic provides its patients with exclusive and, at the same time, personalized treatment. The centre in Vitznau is connected to the Park Hotel Vitznau, one of the most elegant hotels in Switzerland, located against the breath-taking backdrop of the Swiss Alps. All rooms are bright, harmoniously decorated and accessible. We understand that one's family plays a crucial role in the recovery process, and therefore provide accommodation for all family members if needed. At cereneo Vitznau, we offer patients an exceptional rehabilitation experience supported by world class professionals from the medical and hospital-ity section.

cereneo Hertenstein is connected to the Campus Hotel Hertenstein, a modern hotel located directly at Lake Lucerne. Family members can also stay in one of the private apartments next to the clinic. Patients can enjoy a variety of activities designed to allow them to explore the surrounding area and recharge their batteries for the intensive rehabilitation programme. The newly built clinic offers state-of-the-art rehabilitation facilities and equipment as well as modern accommodations. Our medical specialists care for

one patient, and so, on the one hand, individual requests can be met and, on the other hand, treatment is delivered as personalized and interdisciplinary therapy.

Collaboration with the University Hospital Zurich and a network of international partners, like Johns Hopkins University, University of Twente or Hocoma to name a few, make wide-ranging expertise and the best conditions for neurorehabilitation possible in accordance with the latest research from across the world.

## Long-standing partnerships with countries from the GCC region

cereneo has a long-standing history with patients from the Middle East and has built strong partnerships with countries from the GCC region. We appreciate the cultural diversity and have Arabic speaking team members to support the patients during their stay with cereneo. Our patients from the Middle East value the idyllic, discrete and safe environment and the individual rehabilitation programme offered by our team.

## Key competence in neurological rehabilitation

cereneo is one of the world's leading rehabilitation providers for patients who are suffering from stroke, Parkinson's disease, trauma and other diseases of the nervous system.



Prof. Dr. med. Andreas Luft  
*Medical Director cereneo*

cereneo

# Bonn – An international hub for healthcare and research

## The University Hospital Bonn

The University Hospital Bonn (UKB) is among the leading hospitals in Germany and internationally. Our medical center in the former capital of Germany is worldwide recognized for advanced medical care particularly for the treatment of complex disorders. We offer the whole spectrum of modern state-of-the-art medicine.

Specialists from various fields in different departments cooperate closely to guarantee the best medical services for our patients.

Home to around 330,000 people, Bonn is a major Federal city on the Rhine and the former capital of the Federal Republic of Germany. With the highest proportion of hospital beds to population size and its University was ranked number one in the German Excellent Initiative. The city is one of Germany's most important centres for healthcare and research, both resulting in an outstanding international reputation. For this reason, patients from all over the world come to Bonn and make the most of the specialist expertise offered by the wide range of healthcare facilities that are based here. This wealth of medical expertise is enriched by a regional research community that, due to the geographical proximity

of the cities of Aachen, Bonn and Cologne, is characterised by having the highest concentration of higher education and research institutes in Europe. Bonn is a research hub and its University hospital was ranked number I in research in Northrhine-Westfalia, the case mix index is among the four highest in Germany and it was the only hospital of the more than 35 University Hospitals in Germany which had a casenumber increase even in the Corona Year 2020. The University of Bonn is one of Germany's most important research universities and after World War II enjoys an excellent reputation worldwide evidenced by, among others, two Nobel prizes, numerous Leibniz prizes and other aca-

© The University Hospital Bonn







© The University Hospital Bonn

demic honours awarded to the research scientists working at the University, as well as by annual third-party funding amounting to almost 154 million € from competitive grants.

Excellence in research goes hand-in-hand with an international focus: as the only German City of the United Nations since 1996 with more than 20 UN Agencies and more than 1.000 UN Employees it is a place for international dialogue on the key topics of the future, Bonn has established a prestigious profile for itself over the last two decades and offers a warm welcome to international visitors. Alongside federal agencies and institutions for development cooperation, around 150 national and international NGOs also have offices in Bonn including the Headquarters of the Paralympics.

All of this would have been music to the ears of the cosmopolitan, Ludwig van Beethoven, who was born in Bonn and lived there for 22 years. The Beethoven Orchestra and annual Beethoven Festival are just two ways in which the City of Bonn honours this artist's legacy. Those looking for more cultural inspiration will find it on the City's Museum Mile, in the Art and Exhibition Hall of the Federal Republic of Germany, the Alexander Koenig Museum, where the office of the first German Chancellor Konrad Adenauer was located and the Deutsches Museum Bonn, which together attract over a million visitors every year. Alongside these

cultural highlights, Bonn also offers a range of tourist attractions and shops that cater to all tastes and interests. A great forest (Kottenforst) is surrounding the University Hospital and the Siebengebirge along the Rhine provides beautiful sceneries with castles from different centuries.

### What makes us different?

World class medicine, offering individualised treatment and care in almost all specialties of medicine for example

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orthopaedic and spine, paediatric orthopaedics, neurology, general surgery, paediatric Neurology and neurological rehabilitation for children and adults, cardiac surgery, cardiology, neurology, internal medicine with gastroenterology and oncology.

Internationally renowned, awarded experts in their respective medical fields.

Our experts are involved in clinical research and academic collaborations, both nationally and globally, to develop our treatment methods further and to be at the forefront of new technologies and treatments for our patients.

We are internationally recognised for our approach to patient care, quality management and clinical outcomes.

### 2020- at a Glance

- ▶ > 350.000 outpatient visits
- ▶ Ca. 50 000 cases of inpatient treatments

- ▶ 38 clinical specialist departments and 31 institutes
- ▶ 8.449 employees, including 1.091 professors
- ▶ 1.306 beds

Patients from around the world trust the University Hospital of Bonn.

The University Hospital of Bonn enjoys a worldwide reputation for medical excellence. Our highly qualified specialists and nursing staff possess a wealth of experience in their respective speciality areas with many years of experience in treating international patients.

We know what is important to you and can adapt very well to your individual needs. For this reason, our staff speak your native language. Bonn hosts consulates from different countries e.g. United Arab Emirates, Qatar, The Kingdom of Saudi Arabia, Kuwait, Libya and Russia and there is a special traditional affinity between Arabic-speaking people and the city of Bonn.



Services for international Patients and Arab patients includes:

- ▶ Multilingual team of the International Office at the University Hospital of Bonn
- ▶ Certified interpreters
- ▶ Support to foreign patients in obtaining a medical visa to travel to Germany.
- ▶ Service is provided by friendly, English- Arabic and Russian speaking personal
- ▶ All doctors speak fluent English, and medical reports are written in English, if desired
- ▶ Special requests regarding meals are taken into consideration
- ▶ There is a prayer room available

Outstanding areas of expertise (among other):

- ▶ Cardiac Surgery
- ▶ Epileptology
- ▶ Gastroenterology and hepatology, nephrology, infectious diseases, endocrinology and diabetology
- ▶ General, visceral, thoracic and vascular surgery
- ▶ Gynecology and perinatal medicine
- ▶ Hematology and rheumatology
- ▶ Metabolism and hormonal disorders
- ▶ Neonatology
- ▶ Neurology and neurosurgery
- ▶ Oncology (all disciplines): surgical oncology (including robot-assisted surgery (Da Vinci System)), chemotherapy, stem cell transplantation, innovative radiation therapy including latest technologies
- ▶ Orthopaedics and trauma surgery
- ▶ Pediatrics (general pediatrics, Paediatric cardiac surgery (Germany's largest center), paediatric haematology and oncology)
- ▶ Plastic and aesthetic surgery
- ▶ Psychiatry and psychotherapy
- ▶ Urology



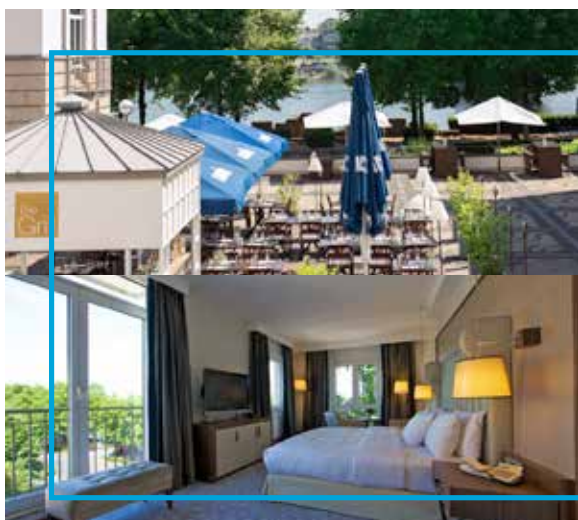
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The International Medical Service team (IMS) will gladly support you with your treatment inquiry and further questions. The staff speaks different languages including Arabic, Russian and of course English. Highly experienced specialists will review your case. For more info visit us on: [www.ukbonn.de](http://www.ukbonn.de) or contact our chief of the International Medical Service: [ims@ukbonn.de](mailto:ims@ukbonn.de) Tel: 0049 228 287 14463 Mob: 0049 1514404855



Prof. Dr. med. Dr. h.c. mult.  
Wolfgang Holzgreve, MBA  
*Medical Director and CEO*

The University Hospital Bonn



## Hilton Bonn

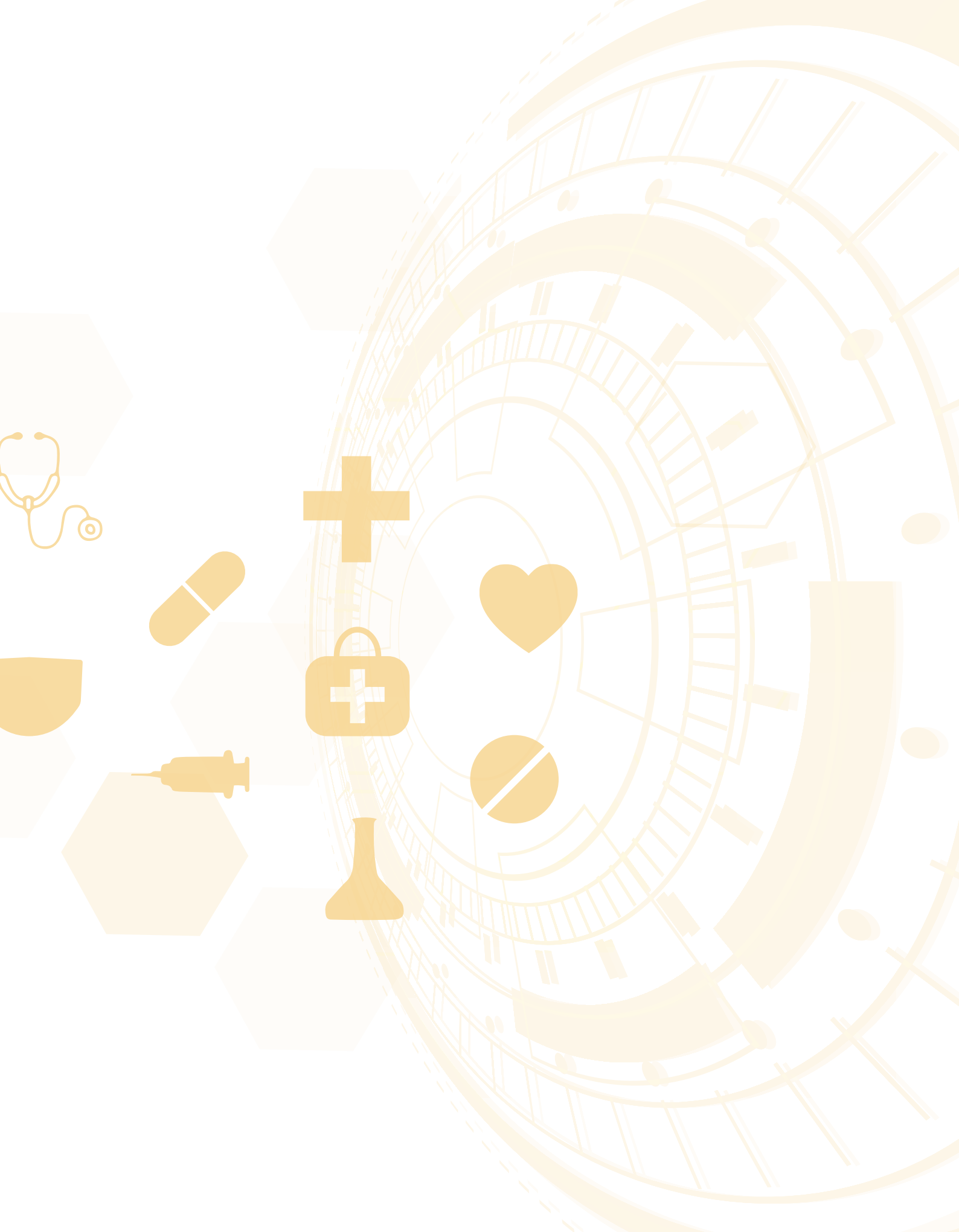
A RIVERSIDE CITY CENTRE HOTEL

Experience Hilton Bonn in the heart of the city within walking distance to shopping and cultural highlights. Explore the city by foot or take a river cruise along the Rhine river. The hotel has a close **collaboration with the Universitätsklinikum Bonn** and other qualified hospitals located in the surrounding area. 252 Guest Rooms including 9 Suites and a number of Connecting Rooms offer a wide choice to accommodate you and your family during your medical stay in Bonn.

For inquiries and bookings visit [bonn.hilton.com](http://bonn.hilton.com) or contact  
Mr. Stefan Friedrich | Director of Sales | [stefan.friedrich@hilton.com](mailto:stefan.friedrich@hilton.com)









## Medical Technology & Pharmaceutical



© Arcensus

# Arcensus

## Arcensus

“Arcensus is a preventive health and medical diagnostics company that empowers individuals to take personal health into their own hands. Leveraging whole genome sequencing (WGS), mobile technology and AI, we make genetics a major driver of health-insights. Empowering individuals globally to access a trustable source and a partner on the path to better health and therapeutics”

Genetic diseases today are impacting approximately 500 million people globally. Genetic disorders, like intellectual disability, glaucoma, metabolism disorders, hearing loss and neurological developmental disorders are partially 40-60 fold more frequent in the Arabic population – compared to the European population - due to the society’s tribal struc-

ture and the high number of cousin marriages. In 2013, Saudi Arabia announced the launching of the Saudi Human Genome Program which aims to sequence 100,000 human genomes to conduct genomics-based biomedical research on the Saudi population.



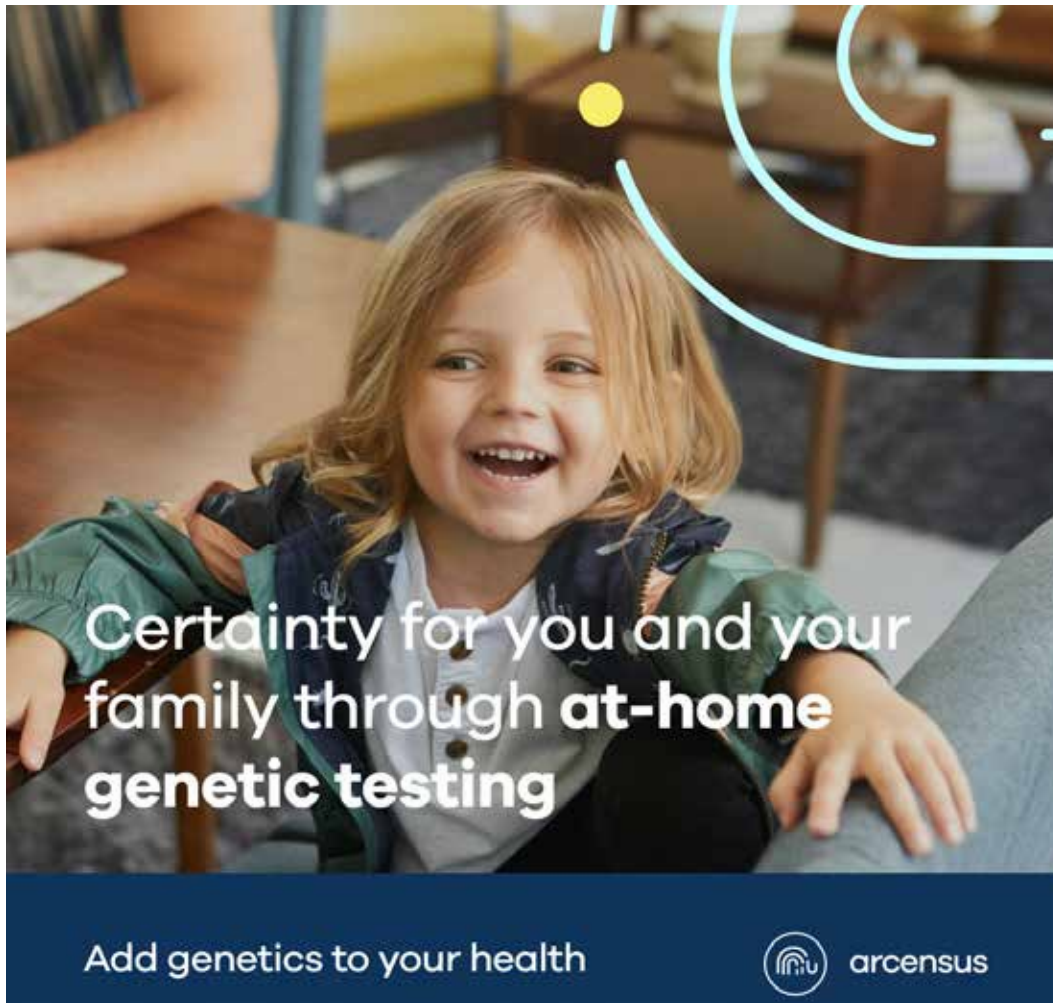
Dr. Arndt Rolfs is a Professor at the University of Rostock, Germany, multi-entrepreneur in biotech, founder, and former CEO of Centogene/Germany. He has an extensive track record in medical and scientific publications with nearly 400 peer-reviewed scientific publication (August 2021). Beginning 2021 he founded a new company, Arcensus GmbH, to develop a new solution for the early diagnosis of genetic disorders worldwide, especially based on the combination of Whole Genome Sequencing (WGS), a unique global reference genome data bank and a direct-to-consumer concept. While the early genetic test results are captured by an optimised WGS approach, the company also integrates the process of detecting actionable genetic information into a holistic long-term support platform. This allows to use the WGS data to generate medical, preventive and provable benefits throughout the lives of the users. With this 100% patient-centric concept, Arcensus significantly increases the standard of medical care by utilising this valuable genetic data for prophylaxis, diagnostics, and therapy.

With regularly updated medical reports, the company is reflecting on the important fact that the interpretation of genetic data continuously changes over time. In this way it is empowering users to constantly leverage the most recent scientific insights from their genetic testing. Hence, on this



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platform an individual's genetic data is constantly aligned with the latest medical research and stays up to date in a rapidly evolving field.

With the diagnostic solution myLifeGenome™, the company offers a DNA test, based on the symptoms and medical history, that gives a chance to patients and their health professionals to find a comprehensive and clear answer to the undefined medical problems at personal level.

A further product is myLifeHeart™; diseases of the heart and blood vessels are a major cause of mortality worldwide. Up to 18 million people, including even 1% of completely healthy and active athletes, die every year from these disorders. Public prevention strategies have relied on managing environmental factors that contribute to cardiac diseases, such as obesity, smoking, and lack of exercise. However, the crucial role of genetics in heart diseases has just recently

become evident. Numerous international societies of cardiovascular specialists recommend genetic testing to diagnose cardiac disorders. However, most of the affected individuals have a long diagnostic odyssey including multiple hospital admissions, as well as expensive and invasive clinical investigations. myLifeHeart™ is the only product in the market covering this high number of genes related to heart-diseases. Most importantly, only a small amount of saliva sample is needed for the diagnosis of heart-diseases with myLifeHeart™, creating life-long valid results.

The product portfolio will soon encompass additional products, such as "myLifeCancer™, myLifeFertility™, myLifeDrugs™, myLifeKids™" and others. Arcensus is also working hard to speed up the continuous improvement of the global reference genome data bank "GlobRefGenome" which is the prerequisite for a cutting-edge quality of the interpretation of the genetic data sets.





Prof. Dr. med. Arndt Rolfs  
*Founder*

arcensus

## Product Expansion and Strategic Partnerships

Over the last months, the team has done an outstanding job in developing a service by combining years of scientific research, as well as genetic and medical expertise.

After the initial launch in Saudi Arabia, the company's products and services have now been expanding to the United Arab Emirates, Kuwait, Bahrain and Qatar. It generates actionable genetic and clinical information for all who suffer from a genetic disease and supports stakeholders supporting patients in this context.

We are now open to discuss new partnership opportunities with all the parties which believe that we can create a bigger value together. Feel free to contact us via [info@arcensus-diagnostics.com](mailto:info@arcensus-diagnostics.com)

## The codex of transparency

The company promises a codex of transparency and quality. Including the promise of never sharing the patient's information or disclose the result of their analyses to a third-party without their full permission. The data is only levered to improve the quality of the report. At Arcensus excellence is at the core of everything, from whole-genome sequencing to genetic interpretation, diagnosis, and data security, as the company is set out to set the standards for others.

With a clear commitment to science. Upon receiving the patient's consent, only anonymised genetic data is used to accelerate research and alleviate the conditions of other individuals with high risk or already suffering from genetic diseases.





## Healthcare



Impressions from Arab Health © GHA

# GHA – GERMAN HEALTH ALLIANCE THE INTERNATIONAL VOICE OF GERMAN HEALTH

## GHA – German Health Alliance

The GHA - German Health Alliance combines the activities and competencies of currently 116 leading German companies and organizations in the healthcare sector. In its multisectoral structure, GHA consists of actors from virtually all sectors, covering a broad spectrum of health expertise and sharing a strong international focus. Around 70 of the GHA members provide medical technology & medical solutions, laboratory equipment & diagnostics, pharmaceutical products, drugs, vaccines and general equipment for hospitals and healthcare facilities.

Within the GHA, looking back to already 30 years of activities and history, the international expertise of member companies and organisation is professionally interconnected and effectively bundled. Export, innovation, and partnerships are key drivers for the activities of the GHA and its members.

Today, more than ever before, in addition to high-quality solutions and products from individual suppliers, it is nec-

essary to offer complete solution packages of the highest quality which are flexibly and modularly adapted to the very different, specific needs and challenges. "The GHA has a special role and positioning through its particular expertise in systemic strategies to strengthen health infrastructure and improve access to high-quality health services," explains Roland Göhde, one of the two Co-Chairs of the GHA Board of Directors.



## Medical technology „Made in Germany“

The German medical technology industry is characterized by great stability and a healthy structure. This is partly due to the fact that many of the medical technology companies come from the typical German medium-sized business sector and are owner-managed. "The medical technology companies within GHA offer a wide range of products, services and customer-oriented solutions for almost any medical problem worldwide. It is the excellent quality, proximity to customers and service at highest level and availability that makes German medical technology so successful in international competition," emphasizes Erhard Fichtner, Co-Chair of GHA.

In its multi-sectoral set-up, GHA connects actors from business, science & research as well as NGOs and foundations within its own membership and far beyond its own network with governments, international and other partner organizations.

The illustration of the logos of all GHA members gives an overview of the wide spectrum in health covered by GHA.

"Our member companies travel around the world and have excellent specialist and country expertise. Take advantage of this expertise and contact the company directly that offers the products and solutions that interest you", Fichtner encourages.

For easy and direct contact with GHA member companies, please visit <https://gha.health/members/> where you will find information about the products, services and solutions offered by the individual companies and organisations as well as their respective competent contact persons.

In detail, the spectrum of GHA:

- Medical Technology & Medical Solutions
- Laboratory equipment & diagnostics
- Pharmaceutical products, medicines, vaccines
- Digital health, e-health & telemedicine

## GHA-Members



<b>Diagnostics &amp; Laboratory Analyses</b> 	<b>Pharma</b> 	<b>E-Learning &amp; Training</b> 	<b>Hospital Operators</b> 
<b>Insurance Providers</b> 	<b>Turnkey Providers Research</b> 	<b>NGOs &amp; Foundations</b> 	<b>Development Cooperation &amp; Finance</b> 
<b>Logistics</b> 	<b>Publishing</b> 	<b>Healthcare Consulting &amp; Certification</b> 	<b>Digital Health Telemedicine e-Health</b> 
<b>Organisations &amp; Associations</b> 	<b>Supporting Partner</b> 	<b>Healthcare Architecture &amp; Construction</b> 	<b>Science &amp; Academia Research</b> 
<b>Medical Technologies</b> 			

- General equipment for hospitals and healthcare facilities
- Education & Training
- Technical Service & Maintenance
- turnkey provider
- Packaging, Logistics, Supply Chain Management
- Planning and consulting services
- Healthcare architects, engineers and designers
- Hospital operation & hospital management
- Insurance solutions for health
- International cooperation and development cooperation in the health sector
- Strengthening the health system
- Pandemic & Disaster Preparedness
- Science & Research and
- Financial Solutions

### Platform for exchange among member companies

"A key factor in GHA is the internal exchange between members, the use of the very special GHA network as well as the cooperation, strategic alliances and partnerships that arise from it," emphasizes Fichtner.

All of this enables the GHA to build reliable and sustainable long-term partnerships and collaborations on an equal footing to jointly strengthen health systems with a special

focus on Global Health and excellent, high-quality medical technologies, solutions and services needed for broader access to health services.

"For the GHA, an overriding goal is to provide targeted support to our members to help them expand their export activities. And at the same time to generate sustainable added value for our members and partners through the available solutions and existing accesses and thus for healthcare as a whole," says Fichtner.

"With its very broad coverage in the health sector and its multi-sectoral, very heterogeneous setup, the GHA serves as an extremely suitable access point to internationally sought-after German health expertise," Göhde sums up.

### Further GHA activities

For 30 years GHA has been present with joint stands at internationally important trade fairs such as MEDICA in Düsseldorf and Arab Health in Dubai.

The transfer of know-how in close cooperation with international key partners plays a very special role at GHA, which is based on the understanding and experience of GHA members regarding the importance of capacity building. According to

Impressions from Arab Health © GHA





Impressions from Arab Health © GHA

Göhde, this essential component is repeatedly requested by partners in various countries as a particularly urgent need.

Together with main strategic partners, GHA also organises health conferences focusing on major important regions. This includes, among others, the 2014 established German-African Healthcare Forum (together with the German-African Business Association/Afrika-Verein) and the 2018 established German-East European & CIS Health Forum (together with the German Eastern Business Association/Ost-Ausschuss der Deutschen Wirtschaft e. V.). The GHA is also a long-standing partner of the Arab-German Health Forum of Ghorfa, which starting with its 14th edition in 2021 is being jointly organized by Ghorfa and GHA.

The close cooperation with the World Health Summit plays a very important role in terms of exchange and collaboration with the scientific and academic community, as does, at international level, the close collaboration with UNAIDS (The Joint United Nations Programme on HIV/AIDS). Both partnerships have been established in 2014. In addition to the core topic of HIV/AIDS, UNAIDS is also addressing many other related and wider issues with a special focus on innovation and digitalization in health. GHA is represented in the Advisory Group of the Health Innovation Exchange (HIEx) established by UNAIDS. Covid-19 has further intensified the cooperation with numerous actors, organisations and institutions in politics.

Furthermore, GHA and UNITE Global Parliamentarians Network to End Infectious Diseases and GHA, having signed a MoU in 2020, are working closely together. UNITE

consists of 170 parliamentarians with a focus in health from almost 70 countries worldwide.

The GHA draws up comprehensive position papers - in some cases also together with the BDI - such as on the topic of "Sino - EU / German Cooperation in Health: Challenges and Opportunities" and presents its positions in the direction of policy, for example in the context of the BMZ 2030 agenda. Last but not least, at the invitation of the German Federal Ministry of Health (BMG), on behalf of the German private sector, GHA coordinated a joint position paper into the process of drafting the Federal Government's new Global Health Strategy, released on October 7, 2020.

Further information is available at [www.gha.health](http://www.gha.health)



Heike Lange  
*Managing Director*

GHA- German Health Alliance



Alexander Boxler  
*Managing Director*

GHA – German Health Alliance



# Ghorfa

BUILDING BRIDGES  
BETWEEN GERMANY  
AND THE ARAB WORLD

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# Ghorfa Arab-German Chamber of Commerce and Industry

## Building Bridges between Germany and the Arab World

Times are challenging but the Arab-German business relations are deeply rooted, stable and full of opportunities. The trade balance between Germany and the Arab countries reached EUR 36.2 billion in 2020. Despite the challenges of the Covid-19 pandemic trade plans between Arab-German cooperation still hold many opportunities for collaboration especially in the health sector.



### About us

The Ghorfa Arab-German Chamber of Commerce and Industry is the competence centre for business relations between Germany and the Arab world. It was founded in 1976 and has been located in Berlin since August 1, 2000. For over 40 years, the Chamber has been committed to promoting business relations between Arab countries and Germany and serves as the primary centre of expertise within the Arab-German business community.

### Our mission

The Ghorfa pursues non-profit goals to enhance and strengthen business relations between Germany and the Arab world in the fields of trade, industry, finance and investment. Strategic partnerships based on mutual benefit and understanding, create new business opportunities that facilitate economic benefits for both sides. The Ghorfa, therefore, mainly focuses on networking, consulting and on providing information about relevant economic and industrial developments.

## Our network

Based on its invaluable heritage and its ambitious commitment, the Chamber has a powerful network consisting of both institutional and entrepreneurial decision makers from Arab countries and from Germany. Under the umbrella of the Arab League and the Union of Arab Chambers, the Chamber operates and acts as the representative of all Arab Chambers of Commerce and Industry in Germany. The Ghorfa works closely with the Arab Chambers of Commerce and Industry, related governmental bodies and relevant business associations in the Arab states, as well as with Arab embassies in Germany. It is part of the worldwide organisation of Joint Arab-Foreign Chambers of Commerce and Industry. The Ghorfa cooperates with German governmental bodies on federal and regional levels and with German industrial associations. The close connections and effective collaborations with decision-makers and policy shapers enable the Chamber to deliver a broad portfolio of high-quality services to meet its members' interests.



## Activities, Conferences and Events

The Arab-German Business Forum has become the most important platform for the initiation and promotion of promising business opportunities between German and Arab business partners. More than 600 high-ranking business leaders and political decision-makers from the Arab world, Germany and Europe participate in this annual conference. The Ghorfa has been organising this distinguished event since 1998 in cooperation with the Union of Arab Chambers and the Association of German Chambers of Commerce and Industry under the auspices of the Federal Ministry for Economic Affairs and Energy.



Moreover, the Ghorfa hosts conferences on different industry sectors such as health, energy, education, and sports to bring together Arab and German professionals from respective branches. These events provide a professional setting for analysing and discussing possibilities for business expansion and serve as a place to debate future trends in the Arab world and Germany. The Ghorfa also runs numerous country-specific events, ad-hoc conferences on arising topics, as well as B2B meetings and working groups.

## Networking

- Quick access to economic and political decision-makers
- Connecting with matching business partners
- Forwarding business enquiries to relevant recipients from our database of 15,000 contacts
- Participating in high-ranking events, conferences and further networking platforms (e. g. Arab-German Business, Energy, Health, Education and Vocational Training Forum)
- B2B meetings with high-ranking business people through events, delegation visits and upon special request
- Exclusive member events such as roundtables and working groups
- Professional all-round assistance for trade fair participation

## Consulting

- General and business-related intercultural consulting
- Specifying possible business cooperation and evaluation of potential business partners
- Country and branch-specific analysis



- Comprehensive and detailed market information
- Competent market entry assistance
- Mediation and arbitration in cases of business disputes
- Advice and guidance through the multitude of offers and competing products in the German and Arab market
- Raising the presence and visibility of Ghorfa member companies in the competitive market
- Visa and commercial documents support

## Information

- Regular reports with relevant information about economic and business trends
- Information on the latest economic developments, promising markets and sectors; legal and political background
- Quarterly bilingual business magazine SOUQ, providing an overview on cooperation possibilities and activities within the Arab-German business community
- Complimentary copy of our Business Guides, Sector Specific Books (e. g. health, education, energy or infrastructure) as well as the Arab-German Business Directory



We welcome you to become part of the high-level network that we provide for professionals and business leaders from the Arab world and Germany. Join us and share our vision of prospering Arab-German business relations. For further information concerning membership in our chamber please contact us:

[Ghorfa](#)

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# CONTRIBUTING COMPANIES AND INSTITUTIONS

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## arcensus GmbH

Arcensus is a genetic health start-up. We empower people to take their personal health into their own hands. By providing a trusted, secure and comprehensive service to proactively gain stronger personal health insights based on genetics and proteomics to thrive into a prepared and healthy future.

Arcensus was founded by the multi entrepreneur and Nasdaq CEO Prof. Dr. Arndt Rolfs. With an experienced team of medical doctors, bioinformaticians, data scientists, ML engineers, digital product managers and marketeers. The company is translating a complex and previously financially out of reach genetics product into a foundation of future individual consumer digital healthcare.

**Project:** direct-to-consumer (DTC) service, myLifeHeart™, pursuing a revolution in early diagnosis of genetically based heart diseases.

**Contact:** Prof. Dr. Arndt Rolfs; Founder arcensus

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## cereneo

CENTER FOR NEUROLOGY  
& REHABILITATION

## cereneo

cereneo is a Center for Neurology & Rehabilitation at Lake Lucerne near the city of Lucerne in Switzerland. With its two locations, cereneo offers its patients highly personalised and exclusive treatments combined with medical excellence and first class hospitality. As one of the world's leading clinics for neurorehabilitation, the clinic treats all neurological diseases. With its unique treatment concept, patients at cereneo are supported throughout their entire recovery process by an interdisciplinary team of experts from the inpatient rehabilitation over transition to home and therapy at home to telerehabilitation. Thanks to strong research collaborations, patients at cereneo can profit from innovative technologies as well as the latest research results being used to achieve fast recovery progress in their rehabilitation.

**Contact:** International Patient Office

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F: +41 41 399 67 71  
Email: info@cereneo.ch  
www.cereneo.ch



## GHA – German Health Alliance

The GHA - German Health Alliance bundles the expertise of its 116 member companies and organisations and is an extremely suitable access to internationally requested German health expertise. The approximately 50 medical technology manufacturers among the GHA members travel around the world and have excellent specialist and country expertise. The other focal points of Strengthening the Health System and Global Health make it possible to put together complete solution packages of the highest quality that are flexible and modularly adapted to the various needs and challenges.

All this enables GHA to build reliable and sustainable long-term partnerships and cooperation on an equal footing for the joint strengthening of health systems with a special focus on Global Health and excellent, high-quality medical technologies, solutions and services.

**Project:** The International Voice of German Health

**Contact:** Alexander Boxler, office.berlin@gha.health  
Heike Lange, office.bonn@gha.health

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# KLINIKEN SCHMIEDER

Clinic for Neurology and  
Neurological Rehabilitation

Kliniken Schmieder

Kliniken Schmieder are a specialist hospital group with six locations in south Germany offering neurological acute care treatment and neurological rehabilitation. As a neurological competence centre, the Kliniken Schmieder treat all neurological diseases of all degrees of severities. The family-run company is regarded throughout Europe as a leader in quality and stands out for its combination of science and practice as well as the personal care it provides to both patients and relatives. For international patients, the hospitals in Allensbach at the Lake of Constance and in Heidelberg offer designated international wards and services both for patients and relatives.

**Project:** Healthcare "Long-Covid effects and how to treat them"

**Contact:** Stefan Boeckle, Director International Relations

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**Sana  
Hospital Group**

Sana Hospital Group

Sana Hospital Group is a group of world-class, award-winning private hospitals, outpatient and diagnostic centers spread across Germany. Sana is owned by the 25 leading German private health insurance companies, including Alliance Insurance Group, DKV and Signal Iduna. Founded in 1976, Sana Hospital Group is one of the leading providers of state-of-art healthcare services in the world, focused on providing clinical excellence and superior patient outcomes. It is an integrated healthcare delivery system with 56 hospitals and over 34.300 employees serving more than 2.2 million patients annually.

**Project:** Digital Pathology: Expertise is not a question of location

**Contact:** Sven Heininger, Director International

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**ukb** universitäts  
klinikum**bonn**

The University Hospital Bonn

Dear visitor, on behalf of the International Medical Service Team (IMS) I would like to extend you a warm welcome. There are a lot of different questions that need to be answered when receiving medical treatments from a foreign country. Either it is a visa, medical records, translation services or practical tips for visiting Bonn, we would be glad to assist you all the way by providing the support and advice. At the University Hospital of Bonn, you will receive an outstanding medical care. When it comes to our services, you can be assured that you are in good hands. We are capable of dealing with all international patients with various expectations and different cultural backgrounds. Please don't hesitate to contact us any time and let us know how we can assist you.

**Project:** Bonn – An international hub for healthcare and research

**Contact:** Mohammed Moneim  
Head of the International Medical Service Department

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Siemens Healthineers AG (listed in Frankfurt, Germany: SHL) is shaping the future of healthcare. As a leading medical technology company headquartered in Erlangen, Germany, Siemens Healthineers enables healthcare providers worldwide through its regional companies to increase value by empowering them on their journey towards expanding precision medicine, transforming care delivery, improving the patient experience, and digitalizing healthcare. Siemens Healthineers is continuously developing its product and service portfolio, with AI-supported applications and digital offerings that play an increasingly important role in the next generation of medical technology. These new applications will enhance the company's foundation in in-vitro diagnostics, image-guided therapy, in-vivo diagnostics, and innovative cancer care. Siemens Healthineers also provides a range of services and solutions to enhance healthcare providers' ability to provide high-quality, efficient care to patients. In fiscal 2020, which ended on September 30, 2020, Siemens Healthineers generated revenue of €14.5 billion and adjusted EBIT of €2.2 billion. Following the acquisition of Varian Medical Systems, Inc. the company has approximately 66,000 employees worldwide.

**Project:** Enabling healthcare institutions to establish innovative and sustainable infrastructures

**Contact:** Ole Per Maloy, Managing Director, Siemens Healthineers, Middle East and Southern & Eastern Africa

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VisitBerlin



"Inspiring the world for Berlin." With this mission, Berlin Tourismus & Kongress GmbH (visitBerlin) promotes Berlin's destination management as well as the city's tourism and congress marketing. Under the Berlin Health Excellence brand and in cooperation with several medical and touristic partners, Berlin as a medical destination is being internationally promoted. On the website [berlin-health-excellence.com](http://berlin-health-excellence.com) the complete spectrum of medical care is accessible in 6 languages.

**Project:** The benefits of telemedicine for international patients

**Contact:** Michaela Kehr, Medical Tourism Manager, visitBerlin

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# IMPRINT

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# Healthcare Guide 2021

Partnerships and Perspectives of  
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# KLINIKEN SCHMIEDER

Clinic for Neurology and  
Neurological Rehabilitation



**SINCE 1950, WE HAVE SET STANDARDS,  
AND CONTINUE DOING SO.**

**FOR YOU, WE NEVER GIVE UP.**

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high quality in neurological rehabilitation