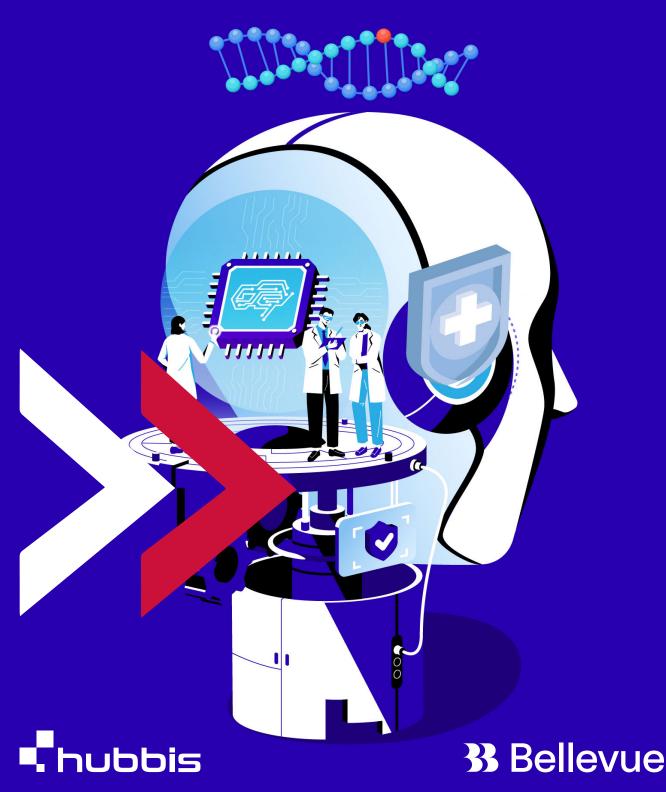
# Into the Future: Harnessing Al in Healthcare





Hubbis and our co-host for the event, Bellevue Asset Management AG of Switzerland, invited a selected group of CIOs, gatekeepers, SFOs, MFOs, EAMs and decision-makers from Asia's wealth management industry to two private bespoke thought leadership events in Singapore and Hong Kong in late September.

The key speaker representing Bellevue was Marcel Fritsch, Head of Healthcare Funds & Mandates and senior portfolio manager, who offered guests some fascinating insights into how GenAI is revolutionising drug development, patient care, and operations and other key facets of medicine across the world, highlighting the critical role of GenAI for healthcare companies and outlining some key investment considerations and opportunities in this transformative sector.



#### GET IN TOUCH

Find out more about Bellevue Asset Management AG
View Marcel Fritsch's LinkedIn Profile
CLICK HERE to view the photos from the Singapore discussion
CLICK HERE to view the photos from the Hong Kong discussion

#### The Mission for the Events

The core of Marcel Fritsch's talks centred on the transformative role of artificial intelligence within healthcare, particularly in areas like drug discovery, diagnostics, and robotic surgery, and how Bellevue aims to capture the value created by Al-driven innovations.

## The Top Takeaways from the Events



## Al-Assisted Robotic Surgery: Enhancing Precision and Efficiency

One of the areas where Bellevue invests is in companies that are pioneering Al-assisted robotic surgery. Marcel Fritsch explained that these technologies offer surgeons unprecedented precision, enabling them to perform complex procedures with greater accuracy and fewer complications. He noted, for example, how one of the leading companies in the field of robotic-assisted surgery collects and analyses real-time data that, in turn, provides surgeons with instant feedback, helping them optimise their movements and improve surgical outcomes.



## Al in Drug Discovery and Development: Accelerating Innovation

Another area that Bellevue focuses on are companies applying AI to revolutionise drug discovery and development. Marcel highlighted companies that use AI to speed up the process of identifying drug candidates and predicting their effectiveness. This approach helps reduce the time and costs associated with drug development, potentially cutting years off the process while increasing the likelihood of success in clinical trials.



## Big Data and AI Partnerships: Fuelling the AI Revolution

The team at Bellevue likes healthcare companies that have formed partnerships with major tech firms. These collaborations provide access to the computational power needed to process vast datasets. For example, AI technology is helping biotech companies develop platforms that accelerate drug discovery and improve diagnostics. Bellevue sees these partnerships as critical to maintaining a competitive edge in healthcare innovation.





## Personalised Medicine: Tailoring Treatments Through Al

Marcel discussed how AI is being used to advance personalised medicine, an area of growing importance for healthcare companies. Al allows for the creation of treatments tailored to a patient's genetic profile and individual characteristics, making therapies more effective and reducing side effects. This personalised approach has become a key focus for many biopharma companies, as it offers a higher level of care and efficiency in treatment outcomes.



## Al-Driven Efficiency in Clinical Trials

Marcel highlighted how AI is improving the design and execution of clinical trials by helping companies identify the most suitable trial participants and predict how different groups will respond to new treatments. This Al-driven efficiency reduces the duration and cost of trials while increasing the chances of success. Bellevue believes that this will lead to a more streamlined drug approval process, benefitting both the industry and patients.



## Al's Role in Improving Healthcare Outcomes

Bellevue is committed to investing in companies that apply AI effectively to improve healthcare outcomes. Whether in diagnostics, where AI can process medical imaging data to detect early signs of disease, or in robotic surgery, where it enhances precision, AI is playing a critical role in elevating the standard of care. Marcel explained that AI reduces variability in treatment outcomes, ensuring that more patients receive high-quality care, regardless of the surgeon's experience or skill level.



## The Future of AI in Healthcare and Investment Potential

Bellevue sees Al as a long-term growth driver in the healthcare industry, with the potential to revolutionise everything from surgery to drug development. As AI technology becomes more advanced and accessible, Bellevue expects to see a significant increase in Al adoption across the healthcare spectrum. Investors who understand and capitalise on these trends should be wellpositioned to benefit from the future of healthcare innovation.



## The Key Perspectives in More Detail: Marcel Fritsch Offers Guests Invaluable Insights

#### THE STARTING POINT: THE EMERGENCE OF ALIN HEALTHCARE

During the discussion, Marcel Fritsch provided a comprehensive overview of the rising prominence of Artificial Intelligence (AI) within healthcare. He emphasised that while healthcare isn't directly responsible for developing AI technologies, it has become one of the sectors benefiting most from AI advancements, especially in the last 18 to 24 months. The industry has increasingly recognised the power of AI, particularly in handling large-scale computational tasks essential for research, diagnostics, and patient care. Companies like OpenAI provide the key technological infrastructure, offering advanced language models and computational capabilities that are now integral to healthcare operations.

# Healthcare as an Adopter, not as a Developer of Al

Marcel explained that healthcare is primarily an adopter of Al technologies rather than a creator. The tools and methodologies developed by key players, such as OpenAI, are applied by healthcare companies to improve operational efficiency and enhance medical outcomes. Larger healthcare organisations with significant resources have been the early movers, leveraging AI to process vast amounts of data, improve diagnostics, and streamline tasks that traditionally took longer or were prone to human error.

However, Marcel highlighted that while Al's impact is profound, it remains in the early stages in healthcare compared to industries such as autonomous driving or financial services. The real potential of Al in healthcare is still emerging as it becomes more integrated into areas like robotic surgery, drug discovery, and patient management systems.



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## Al's Role in Other Industries as a Benchmark for Healthcare

Marcel pointed out that AI has already achieved significant milestones in sectors like autonomous driving and financial services, where it has been used for tasks such as fraud detection and risk management. By observing these sectors, the

healthcare industry can draw valuable lessons. In financial services, for instance, AI has been pivotal in identifying patterns that humans could easily overlook, and this same power can be applied in medical diagnostics or predictive health analytics.

The AI tools that have been successful in other fields are gradually being adapted for

healthcare purposes. Marcel stressed that the large healthcare companies making substantial investments in Al today are well-positioned to drive forward the industry's transformation, just as financial institutions that embraced Al early on have gained competitive advantages.

# Investment Implications: Targeting Larger Players for Al Adoption

From an investment perspective, Marcel expects that larger healthcare companies stand to gain the most from integrating Al into their operations. These firms have the capital and infrastructure to invest in AI technologies, giving them an edge in areas such as robotic surgery, diagnostics, and drug development. Al offers the potential to significantly reduce failure rates in drug trials and enhance the accuracy of diagnostic tools, which translates into cost savings and better patient outcomes.

Marcel acknowledged that while AI has not yet revolutionised healthcare with groundbreaking products, it is already delivering operational improvements. These advances make larger healthcare companies more competitive and position them as leaders in a rapidly evolving market. Investors should pay close attention to these firms, as the integration of AI will likely drive long-term growth in the healthcare sector.

## Transformative Potential: AI as a LongTerm Growth Driver

In summary, Marcel views Al as a transformative force in healthcare,



MARCEL FRITSCH

Head of Healthcare Funds & Mandates

Bellevue Asset Management AG

with the potential to reshape the industry over the coming years. While the healthcare sector is still in the early stages of Al adoption, the groundwork is being laid for a future where Al-driven technologies become central to operations. As Al tools become more sophisticated and more widely applied, they will help healthcare companies improve efficiencies, reduce costs, and

ultimately provide better care to patients.

For investors, Marcel believes that focusing on companies with the resources to fully deploy Al is key. These companies are likely to be the first to see meaningful returns from Al investments, not just in terms of financial performance but also in their ability to lead the industry in innovation and operational excellence.



## AI-ASSISTED ROBOTIC SURGERY: REVOLUTIONISING PRECISION AND EFFICIENCY

In the realm of Al-assisted robotic surgery, Marcel Fritsch highlighted how advancements in artificial intelligence and robotics are fundamentally transforming surgical procedures. He pointed to leaders in this field who exemplify the intersection of Al and robotic technology. The leading system, widely recognised for its ability to provide surgeons with unparalleled control and precision, now incorporates Al to enhance real-time decision-making during surgery.

## Data Collection and Real-Time Feedback

One of the most significant advantages of the this technology is its capacity to collect an extensive range of data throughout a surgical procedure. This data includes metrics such as the pressure applied by the surgeon's instruments to tissues and organs, the speed and movement of those instruments, and the overall kinetics of the operation. Al then processes this data to offer real-time feedback, helping surgeons optimise their performance. For example, the system can alert the surgeon if excessive pressure is applied, reducing the risk of damage to delicate tissues. This precision becomes even more critical in complex, minimally invasive surgeries, where even small errors can lead to significant complications.

## Surgical Insights and Best Practices

Moreover, Marcel noted that Al doesn't just support real-time feedback but also enables the creation of 'surgical insights'. These insights are essentially a set of best practices for specific procedures, generated from data collected from thousands of surgeries. For instance, in simpler surgeries like gallbladder removal, the Al system can suggest the next steps based on the patterns

of successful procedures. This feature proves invaluable for younger or less experienced surgeons, who benefit from the system's guidance, helping them match the performance of highly experienced specialists.

## Improving Surgical Success Rates and Hospital Efficiency

Marcel emphasised that one of the key benefits of Al-assisted robotic surgery is its potential to reduce variability in surgical outcomes. Traditionally, the quality of surgery has been highly dependent on the individual surgeon's experience and skill level. However, with AI providing standardised guidance and feedback, more surgeons can achieve higher success rates, thereby improving overall patient outcomes. This capability is particularly crucial in environments with a shortage of experienced surgeons, as the AI helps bridge the gap between seasoned specialists and newer practitioners.

Additionally, Marcel highlighted how Al-assisted surgery can increase hospital efficiency by reducing operating times. With Al optimising surgical steps and minimising errors, surgeries are completed more quickly, allowing hospitals to handle more cases and reduce waiting times for patients. This efficiency can

lead to significant cost savings for healthcare systems, further solidifying the value of AI in medical environments.

#### Continuous Improvement and Future Innovations

Another benefit Marcel touched on was the ability to record and analyse every procedure, providing hospitals and surgeons with performance data that can be reviewed post-surgery. Surgeons can compare their performance with key opinion leaders, identify areas for improvement, and train more effectively using real-world data. This ability to continuously learn and improve through data analysis represents a major leap forward in medical training and skill development.

Looking forward, Marcel expects that the integration of AI in robotic surgery will continue to evolve, with even more sophisticated applications being developed. For instance, AI could one day play a role in anticipating potential complications before they arise based on the patient's medical history and the specific nuances of the surgery. As these systems advance, the line between human skill and machine guidance will become increasingly blurred, with Al playing a more prominent role in the success of complex surgeries.

## AI AND ROBOTICS IN DRUG DISCOVERY AND DEVELOPMENT: A NEW FRONTIER

In the sphere of drug discovery and development, Marcel elaborated on how AI is becoming an indispensable tool for pharmaceutical and biotech companies. While AI-driven drug discovery is still in its early stages, it offers significant promise for accelerating the development of new treatments and improving success rates. Marcel pointed to the case of a biotech company that uses AI to speed up drug discovery, as an example of how companies can leverage AI to compete in a space traditionally dominated by large pharmaceutical firms.

## Accelerating Drug Discovery Timelines

Marcel reported that the challenge in drug discovery has always been the time and cost involved in identifying new drug candidates and bringing them through clinical trials to market. On average, it takes 10-15 years and billions of dollars to develop a new drug. Al, however, is helping to shorten this timeline by rapidly processing vast datasets to identify promising compounds and predict how they will interact with biological systems. He explained that by using AI, companies can simulate how drugs will perform in various clinical scenarios, reducing the need for costly and time-consuming trialand-error approaches.

#### Reducing Early-Stage Failure Rates

One of the most exciting aspects of Al in drug discovery, Marcel noted, is its ability to reduce failure rates in early-stage trials. Historically, many drug candidates fail in the early stages of development due to unforeseen interactions or inefficacies. Al can help mitigate these risks by analysing data from previous trials and identifying patterns that may indicate potential problems before they arise. For example, Al can simulate how a compound will interact with



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various proteins or cells, flagging potential issues that would likely cause the drug to fail later in the development process. This foresight allows researchers to focus their resources on the most promising candidates, improving both efficiency and success rates.

#### Enhancing Clinical Trials and Personalised Medicine

Despite these advances, Marcel noted that AI is still far from reaching its full potential in drug discovery. As of now, no major drugs have been developed solely through AI, though several are in the pipeline. The technology is still largely being used to support traditional drug development

processes rather than replace them. However, as AI continues to evolve and improve, Marcel believes it will become an increasingly vital component of pharmaceutical research.

One area where AI is already making a significant impact is in clinical trials. Marcel explained that AI-driven tools can help design smarter clinical trials by identifying the most suitable candidates for testing and predicting how different populations will respond to new treatments. By tailoring trials more precisely, AI can help reduce the number of participants needed, shorten the duration of trials, and increase the likelihood of success. This

capability is particularly important for personalised medicine, where treatments are customised based on a patient's genetic makeup and other individual factors.

## Partnerships and Future Innovations

Marcel also touched on the importance of data partnerships between pharmaceutical companies and major tech firms. These partnerships provide biotech companies with access to the computational power and Al tools they need to analyse the massive datasets generated during drug development.

Looking to the future, Marcel predicted that AI will eventually become a standard tool in drug discovery, particularly as costs continue to decrease. He anticipates that as AI becomes more accessible, even smaller biotech firms will be able to use it to develop novel treatments, leading to a wave of innovation across the industry. This, in turn, could trigger a surge in mergers and acquisitions as larger pharmaceutical companies seek to acquire smaller firms with promising Al-developed drug candidates.

Marcel concluded by emphasising that while AI is not yet a silver bullet for drug discovery, it is already proving its value by improving efficiency, reducing costs, and increasing the likelihood of success. As AI continues to evolve and become more deeply integrated into the pharmaceutical industry, it has the potential to revolutionise the way drugs are developed, ultimately leading to faster, more effective treatments for patients worldwide.







#### INVESTING IN AI: A TRANSFORMATIVE OPPORTUNITY IN HEALTHCARE

In Marcel's view, he said Al's rapid evolution has created unprecedented opportunities in healthcare investing. As artificial intelligence becomes more integrated into the healthcare sector, he explained how investors can capitalise on this transformation. Al is not only revolutionising diagnostics, drug discovery, and surgical procedures but also fundamentally altering the landscape of healthcare investments, particularly within the MedTech and biotech sectors.

#### The Role of Large **Healthcare Companies** in Al

One of the key points Marcel made is that, while smaller biotech firms have been early adopters of AI, he expects the larger healthcare companies to be best positioned to benefit from this technology over the long term. These companies have the resources to invest heavily in Al infrastructure, data scientists, and partnerships with major technology firms. By leveraging their vast datasets and computational power, these large players are making strides in both improving their operational efficiency and enhancing patient care.

Marcel explained that Bellevue focuses on identifying these large-cap healthcare companies that are leaders in Al adoption. He highlighted that this approach is not just about identifying companies that use AI but about

understanding which firms are strategically embedding AI into their corporate DNA. This focus on Al affinity – where top-level management is committed to Al integration – is a key criterion for Bellevue's investment decisions.

## The Future of Al in **Healthcare Investing**

Looking ahead, Marcel is optimistic about the future of Al in healthcare but also cautious about the challenges that lie ahead. He mentioned that, while the technology is advancing rapidly, there are still regulatory hurdles to overcome, particularly in areas like drug approval and patient data security. Additionally, Marcel acknowledged that smaller biotech firms may face difficulties competing with larger players due to the high costs of implementing AI.

Despite these challenges, Marcel believes that Al's potential to

disrupt the healthcare sector makes it a critical area for long-term investment. As Al technology continues to mature, Marcel expects that more healthcare companies will adopt Al-driven solutions, leading to increased efficiency, better patient outcomes, and new investment opportunities.

Marcel concluded by emphasising that AI is not just a trend but a long-term structural shift in healthcare. For investors, understanding how AI is being implemented across different sectors of healthcare is essential for capturing the value that this technology can bring. As AI continues to evolve, it will undoubtedly reshape the landscape of healthcare investing, offering both challenges and opportunities for those who are prepared to navigate this complex and rapidly changing market.

## **Bellevue Asset Management**

Bellevue Asset Management AG is a Switzerland-based, traditional asset manager with approximately US\$7 billion in assets under management. Bellevue's focus is primarily on healthcare, managing mainly longonly public market portfolios with strategies ranging from global healthcare to more focused investments and specialty themes.

Marcel Fritsch has been with Bellevue Asset Management AG since 2008. He is Head of Healthcare Funds & Mandates and oversees as portfolio manager of the MedTech & Services, Digital Health and Al Health strategies. Prior to that, he worked as a consultant at Deloitte Touche Tohmatsu for over 3 years. Marcel holds a degree in business administration from the University of St. Gallen (HSG).