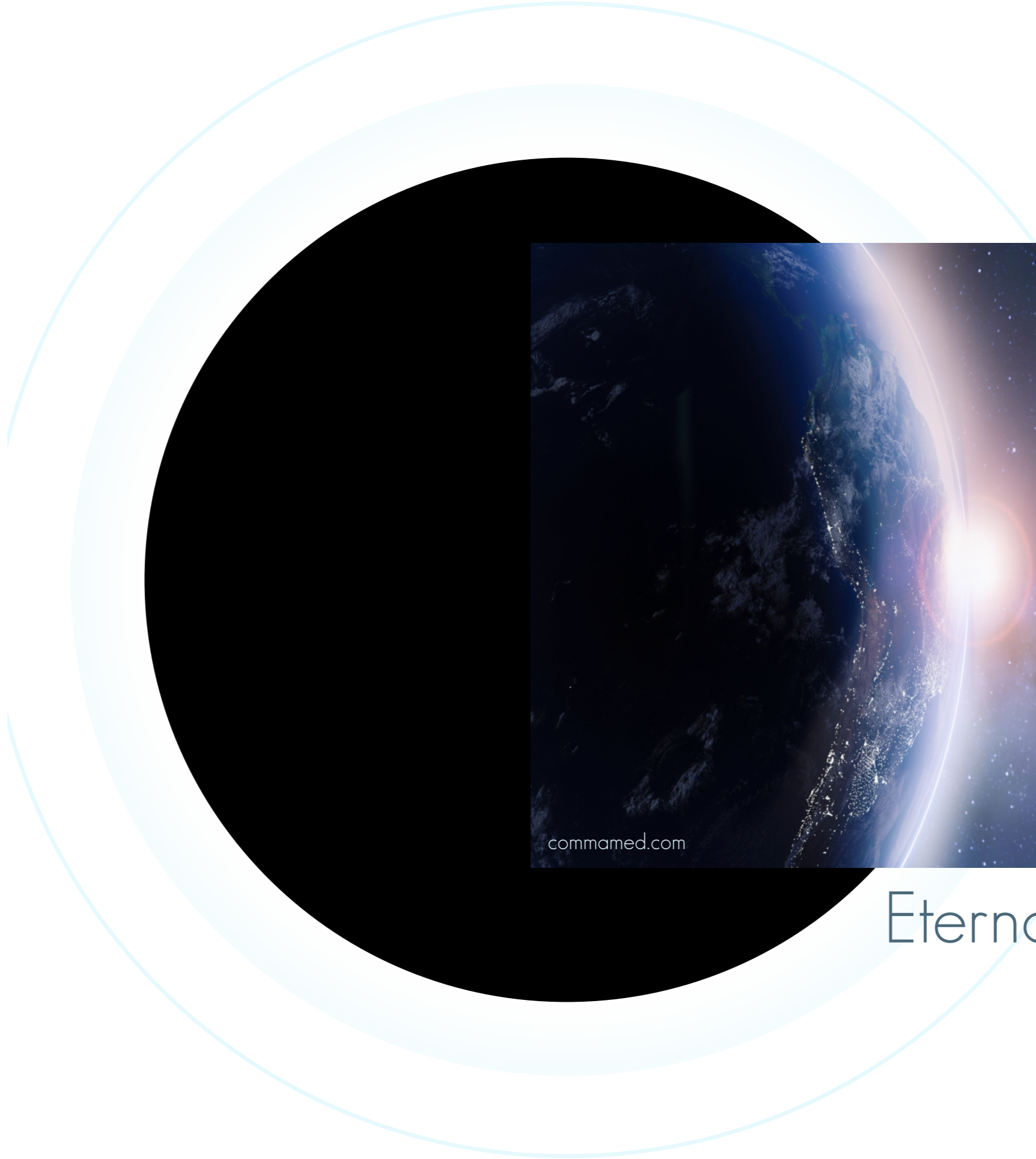


COMMUN



Eternal life

commmed

Eternal life

Cancer detection platform using artificial intelligence

CAVU





comma

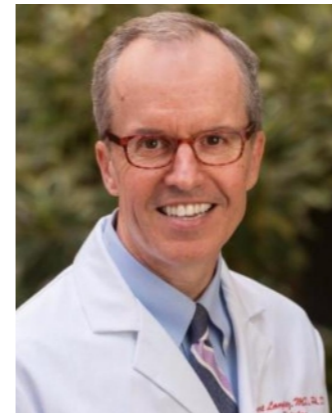
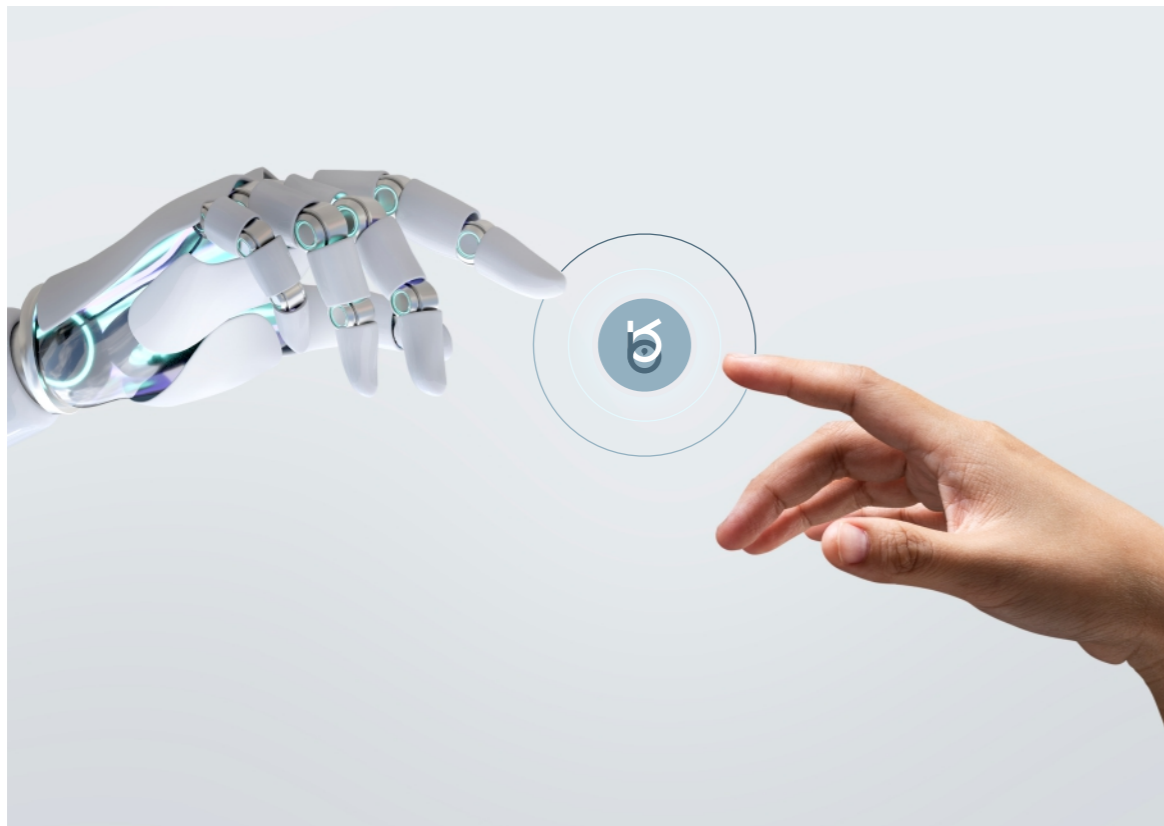
2

Introducing the wonder that is time - the very essence of human growth, knowledge transfer, and passing on genes to future generations. And now, with the help of science and human consciousness, we are exploring ways to expand our lifespan, bringing hope to the very concept of life itself.

But to achieve a long and fulfilling life, we must first understand the factors that threaten both its quantity and quality. That's why we've developed machines with the ability to learn and achieve high accuracies, paving the way for a higher understanding of ourselves and more effective decision-making.

With better health comes a more effective life, and with wisdom, creativity, and perseverance, we can use our knowledge to provide opportunities for the survival of our fellow humans. And now, a new frontier has emerged - "eternal living" - thanks to the groundbreaking organization known as "Comma". Their revolutionary interspace technology offers limitless possibilities for extending our lifespan and unlocking our full potential.

Join us on this incredible journey towards eternal living and experience a brighter future than ever before.



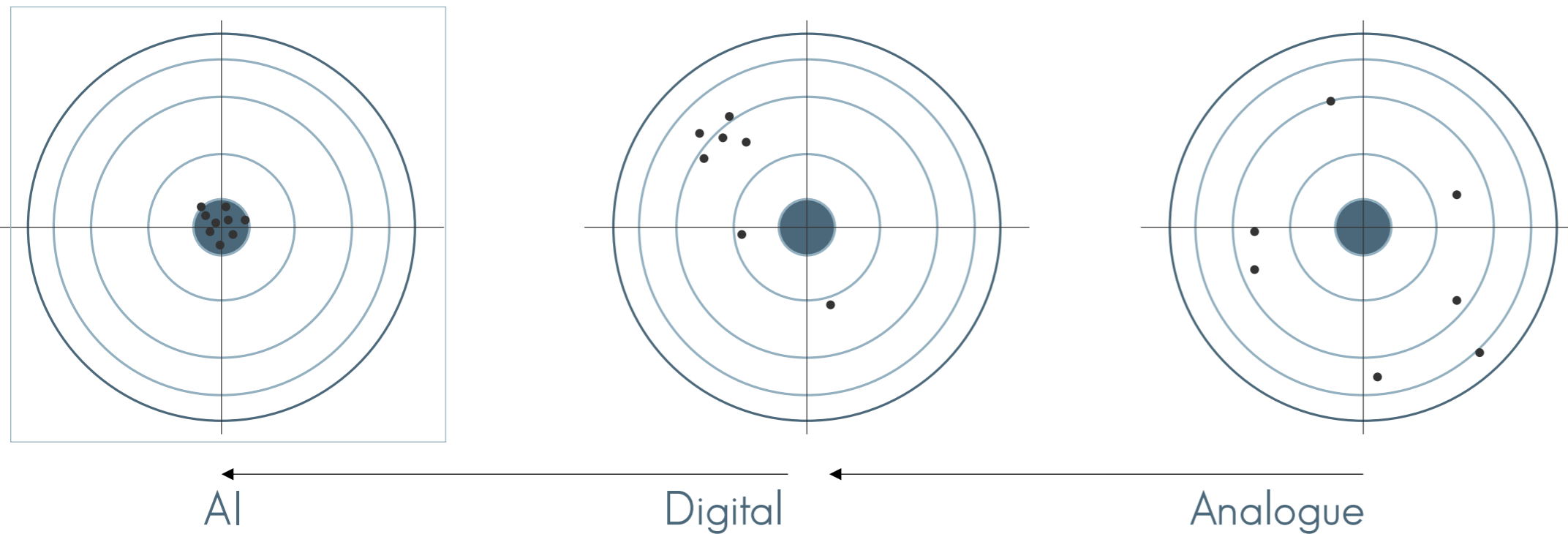
“Artificial intelligence will not replace radiologists, but radiologists who use AI will replace radiologists who don’t”

Curtis P. Langlotz, MD, PhD
Director of the Artificial Intelligence Center at Stanford Medicine





The world of artificial intelligence has a favorable uniformity due to the indefatigability of machines.

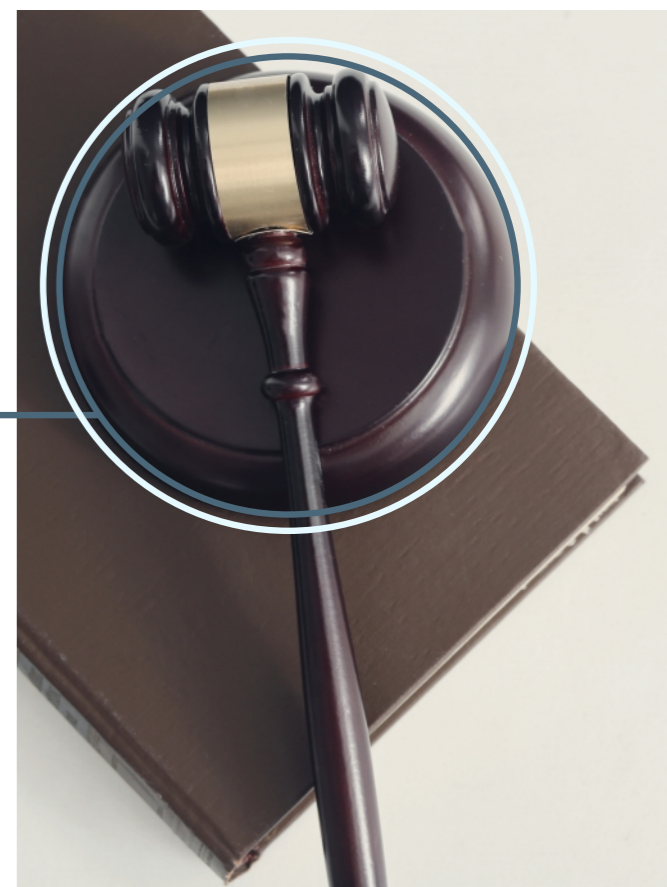


Accuracy is an improvable metric, which mankind has been trying to improve for many years. Recalling the significant enhancement of the accuracy in transferring from analog to digital technology, we are now at the edge of entering a new paradigm called artificial intelligence.

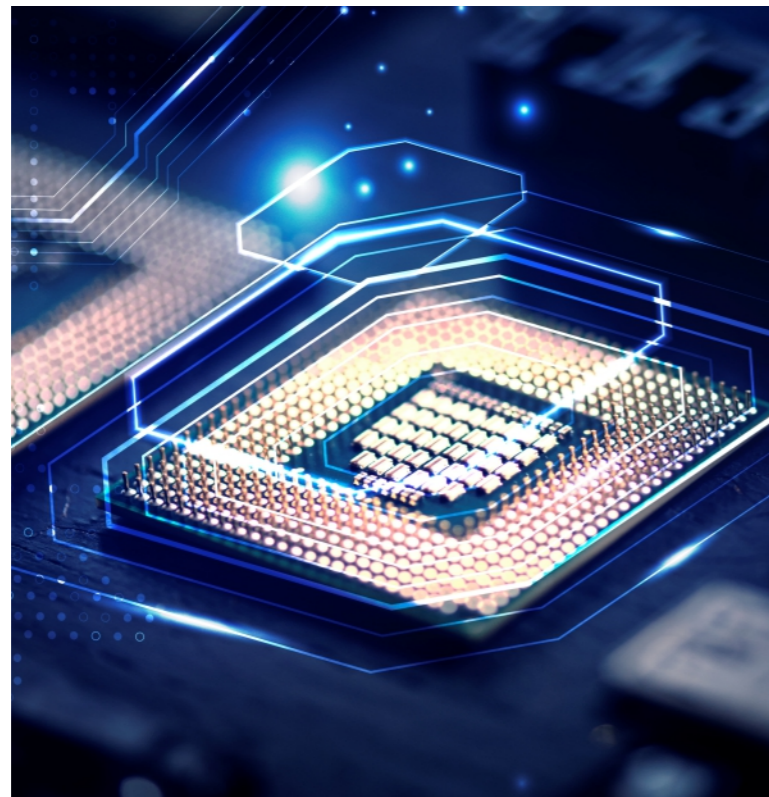
Medical complaint



One of the most problematic issues among all professions is facing the legal consequences of medical complaints, which more frequently occur in radiology. Going through the diagnosis process by an artificial intelligence assistant as a professional supporter can reduce complications related to medical claims. There are 35000 claims yearly with 38% of medical mistakes.



In traditional CAD systems, the systems worked based on image processing and algorithmization developed by experts. In recent years, with the progress of artificial intelligence technologies in machine learning, specially deep learning technologies, highly complicated algorithms are established by the computer itself, which provides the opportunity of reducing the gap between learning with humans. This has led to the adoption of artificial intelligence in new applications including medicine.



In medical artificial intelligence technology, the system is trained by analyzing the images tagged by experts and hence learns to identify suspicious regions in unseen images. The more precise data (such as biopsy reports, etc.) is provided, the better the learning will be, leading to more accurate decision-making.



We believe that, in the first place, our solutions for early detection of breast cancer, alongside increasing the annual screening rate, can remarkably contribute to the eradication of breast cancer.

Machine is fast,



Radiologist's assistant
as a second eye.



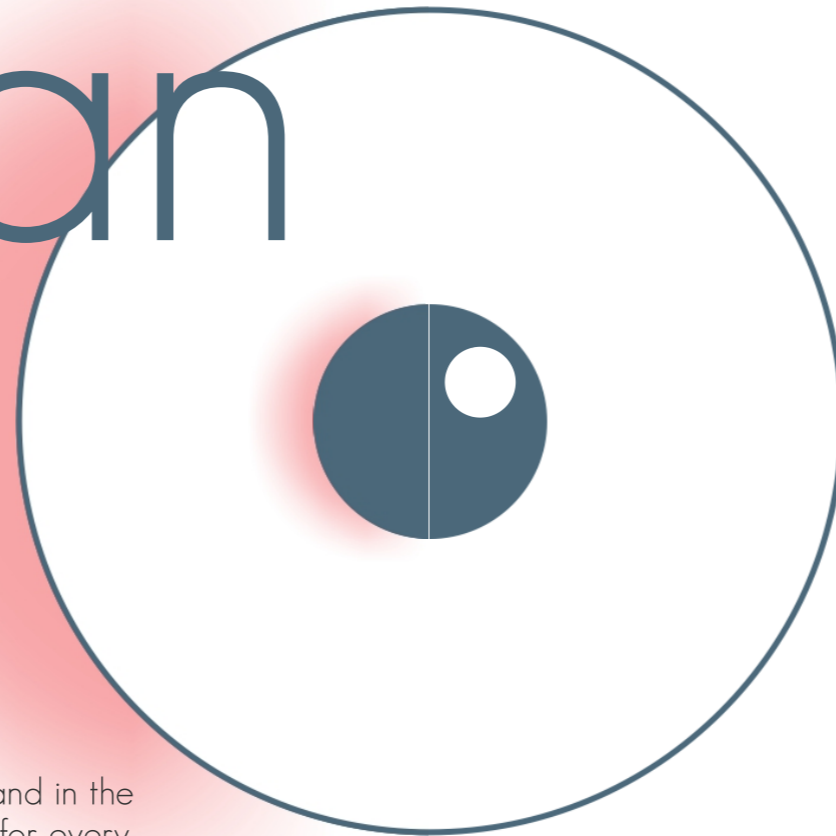
The AI technology has been trained on more than four hundred thousand mammogram images, along with several thousand positive biopsy tests, and is still learning. Artificial intelligence as a "second eye" helps radiologists to make faster and more accurate decisions, and having this "second eye" can decrease the number of missed cancerous cases in diagnosis.



Technically, it has been proven that the artificial intelligence technology trained in 83.33% sensitivity, 75.8% specificity, AUC 88%, and more than 92% tumor capture rate is as accurate as an experienced radiologist! This accuracy is increasing every day.

The problem of human limitations

Human

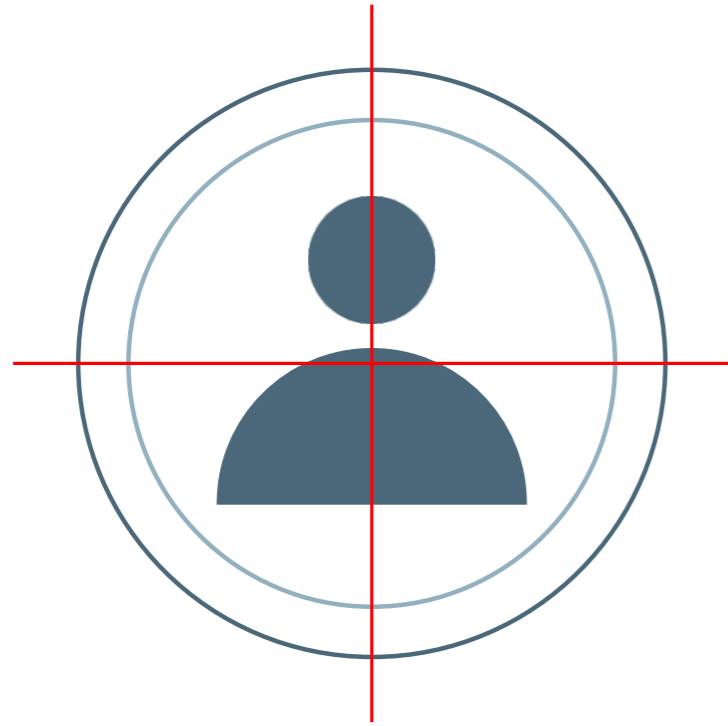


AI

Machines don't get tired
Speed/Precision/Tireless

Machines do not need to rest due to their stabilities, and in the case of an average human, we need 1 minute of rest for every 20 minutes of working. In addition, the Human eye is only able to recognize 178 dpi.

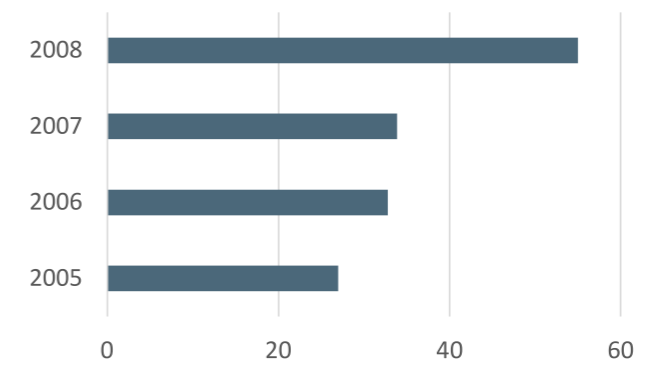
Personalized Medicine



Cancer after heart disease Vascular is the second most common cause of death in developed countries.
Cancer causes about 70% of new cases in less developed countries.



Growth trend of breast cancer in Iran



Artificial intelligence technology requires dedicated hardware with unique processing properties. Therefore, the Comma Med team designed and built a system using current knowledge to provide a high-quality experience of using AI.

///

- Basic features:
- Artificial intelligence platform
 - Report generator system

AI box





Artificial intelligence test score

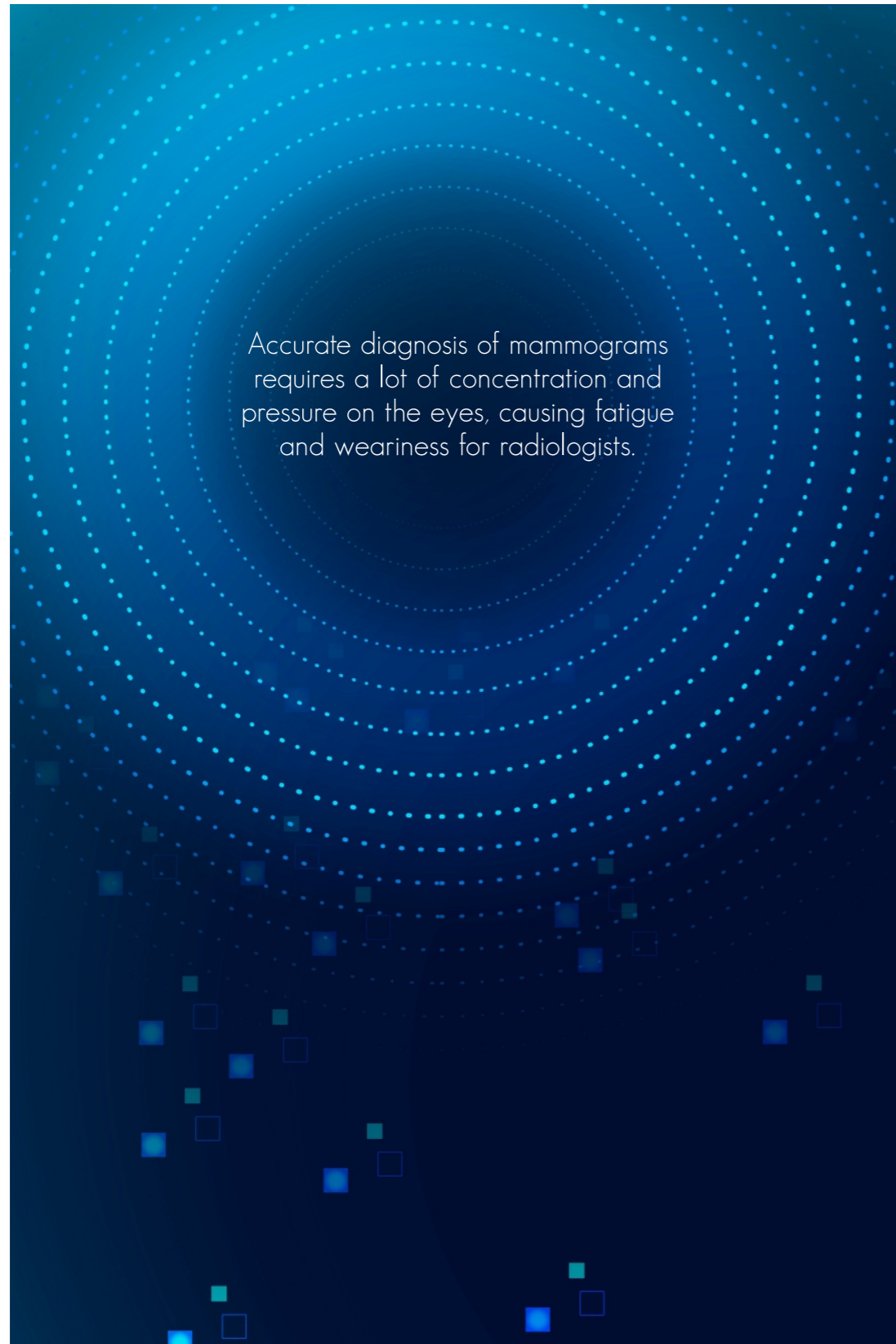


Artificial intelligence assigns a score between 0 and 100 per breast image. This score indicates the risk of malignancy. Patients having a score of 100 can immediately be evaluated for further examination and are treated faster and easier due to faster diagnosis. Likewise, these treatments are usually less invasive and painful and have a higher chance of success.



Learning images more than
the radiologist's life.

CAVU



Accurate diagnosis of mammograms
requires a lot of concentration and
pressure on the eyes, causing fatigue
and weariness for radiologists.

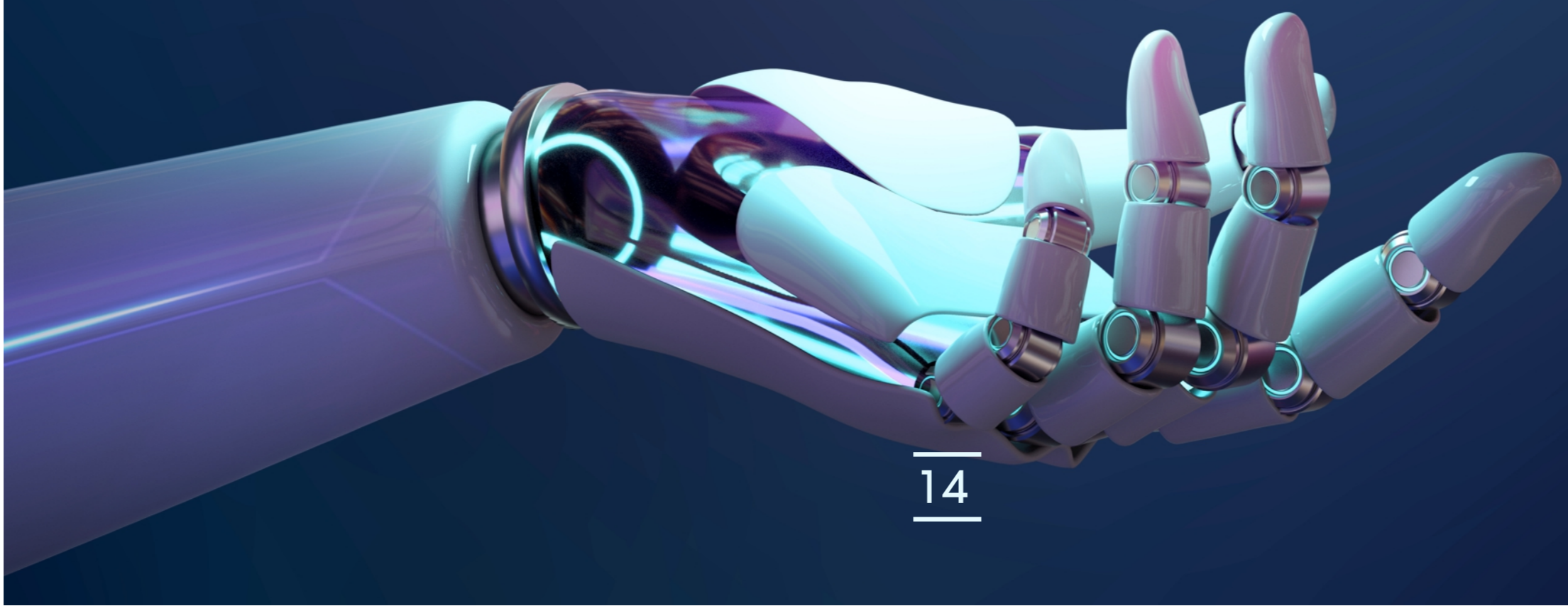
The number of images that our AI models are trained with is
more than the number of images that a radiologists can see in
their working life.

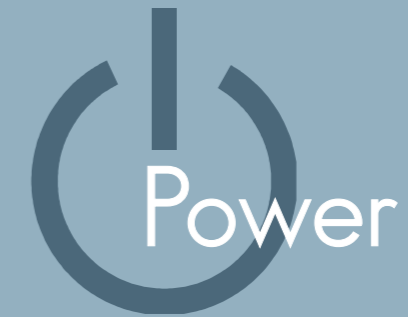
By using the artificial intelligence system, it is possible to
diagnose faster and more accurately even without a medical
monitor for radiologists.

"The human eye is only capable of seeing 178 dpi (dots per
inch)."

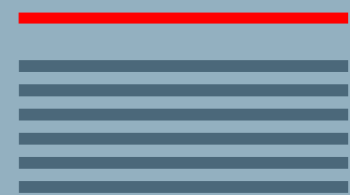


Increase accuracy up to 93%
High-quality response with a minimum error rate
Prevention of responsible consequences of human error
Swifter diagnosis





The first goal of using artificial intelligence plugins is to increase speed and stable accuracy.



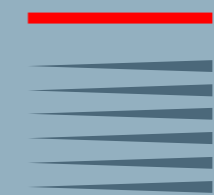
Average detection time
15-20 min



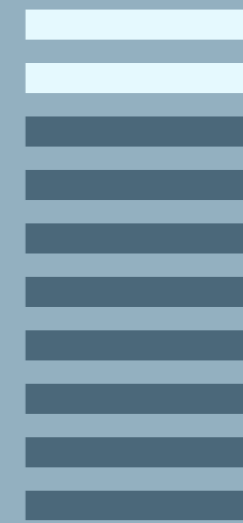
comma



56% Improved




Improved detection time
8.4-11.2



Increasing the diagnostic power of
general radiologists by more than 88%



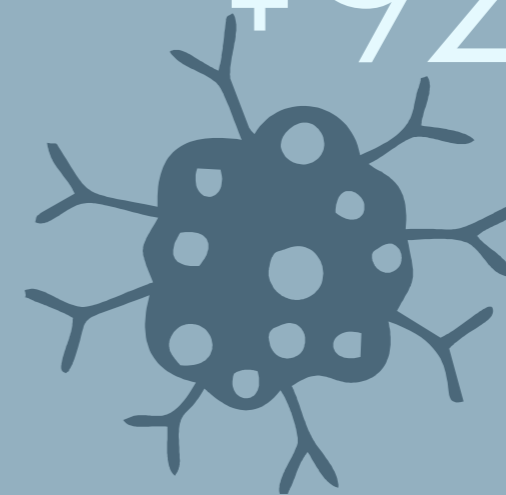
+400,000 Mammograms 

Including +10,000 biopsy



6 clinical trial courses at the Cancer
Institute

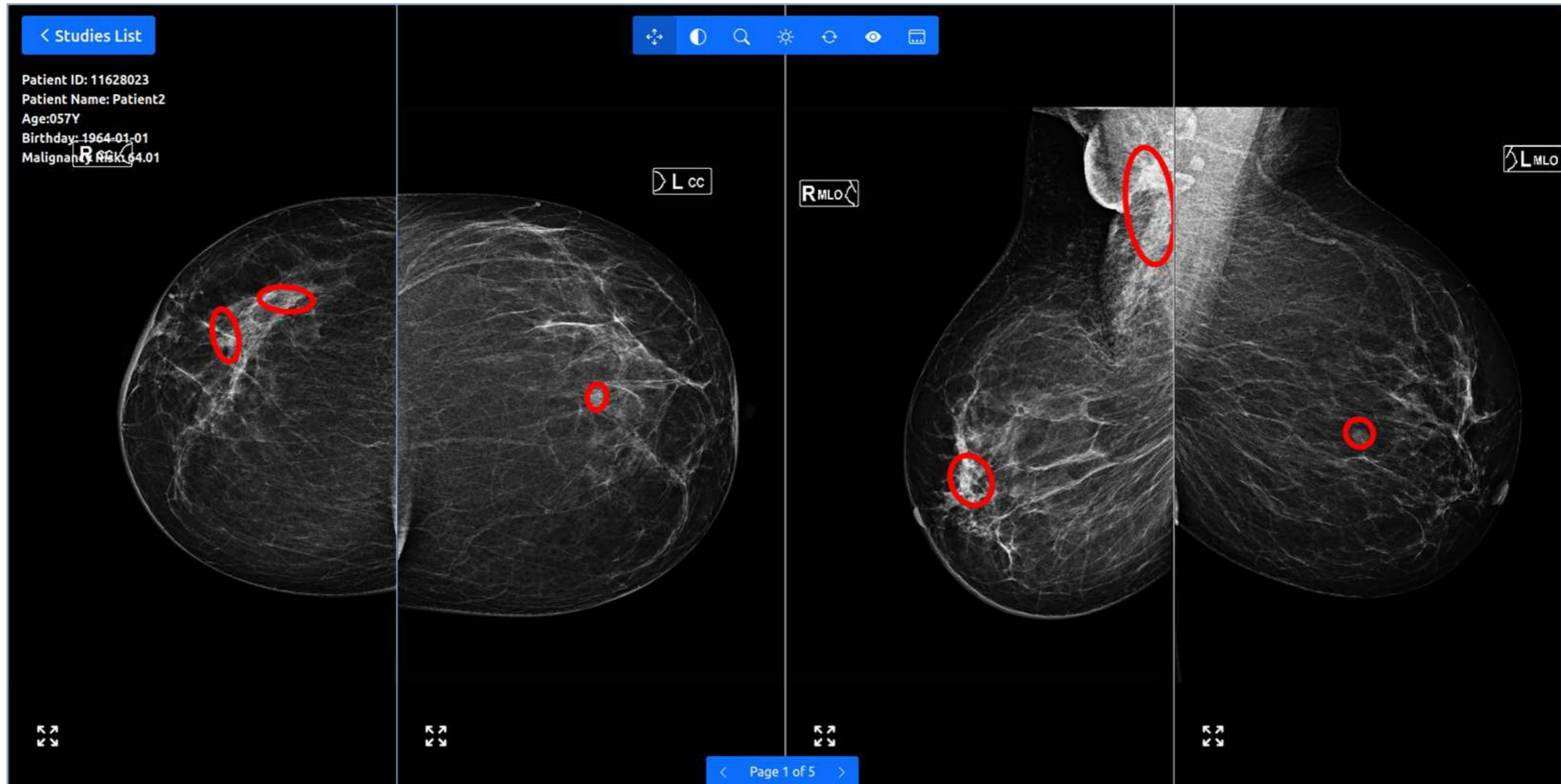
commended
+92% of suspicious tumors



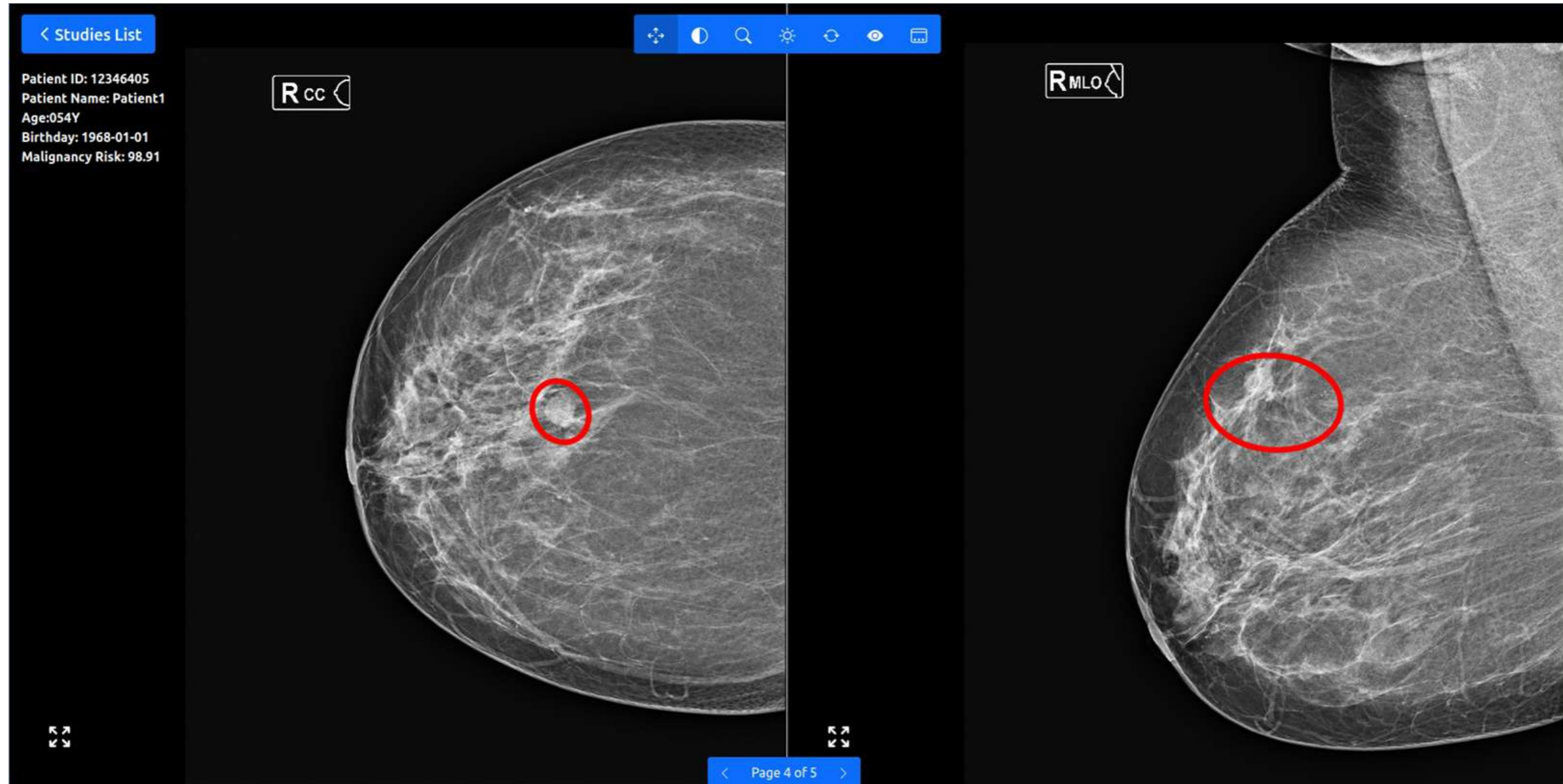
This score which is in the range of 0 and 100 represents the risk of breast cancer. Scores that are above 50 demonstrate the patient BIRADS class is among 4,5,6.

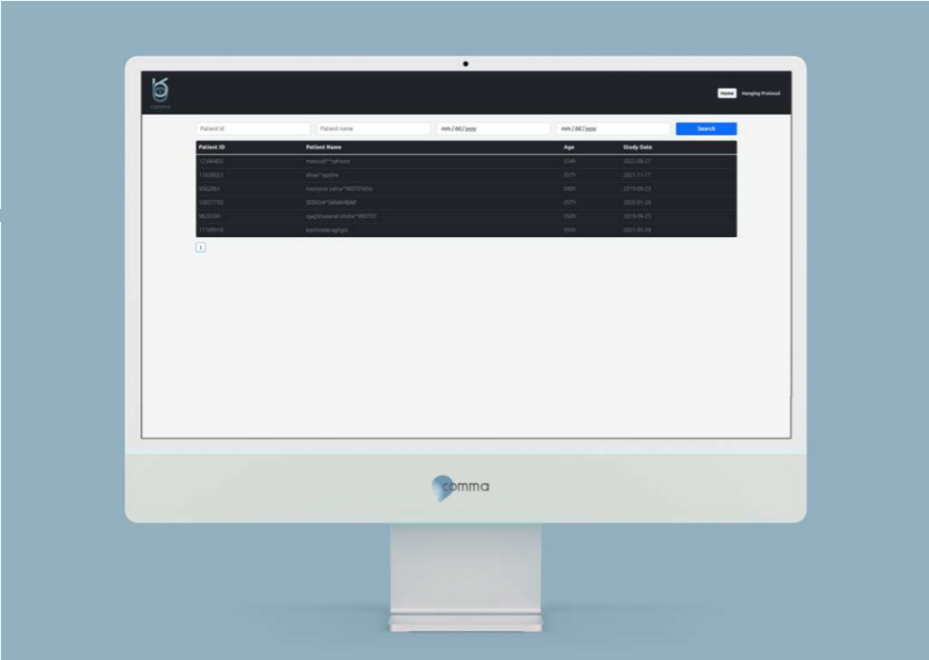
The screenshot displays a medical software interface for breast X-ray analysis. On the left, a sidebar contains patient information: Patient ID: 12346405, Patient Name: Patient1, Age: 054Y, Birthday: 1968-01-01, and Malignancy Risk: 98.91. The main area shows a split-view X-ray of a breast. The left side is labeled 'R MLO' and the right side 'L MLO'. A red ellipse highlights a suspicious area on the right side of the image. A red arrow points from this ellipse to a text box on the right that reads: 'This location is drawn around the suspicious area using an ellipse.' The interface includes a top navigation bar with icons for zoom, pan, and other functions, and a bottom status bar indicating 'Page 3 of 5'.

Help to separate Birads 3 and 4



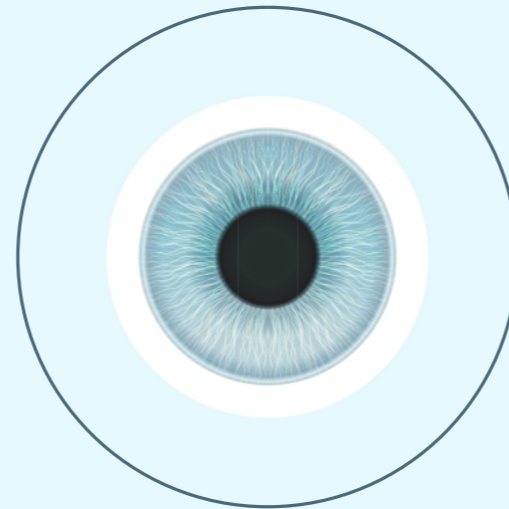
Improved diagnostic accuracy for dense breasts





Prioritization of

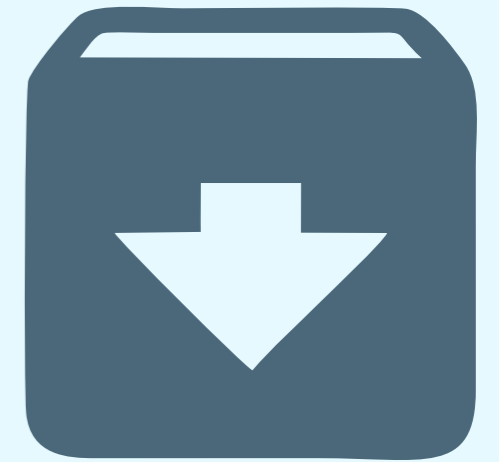
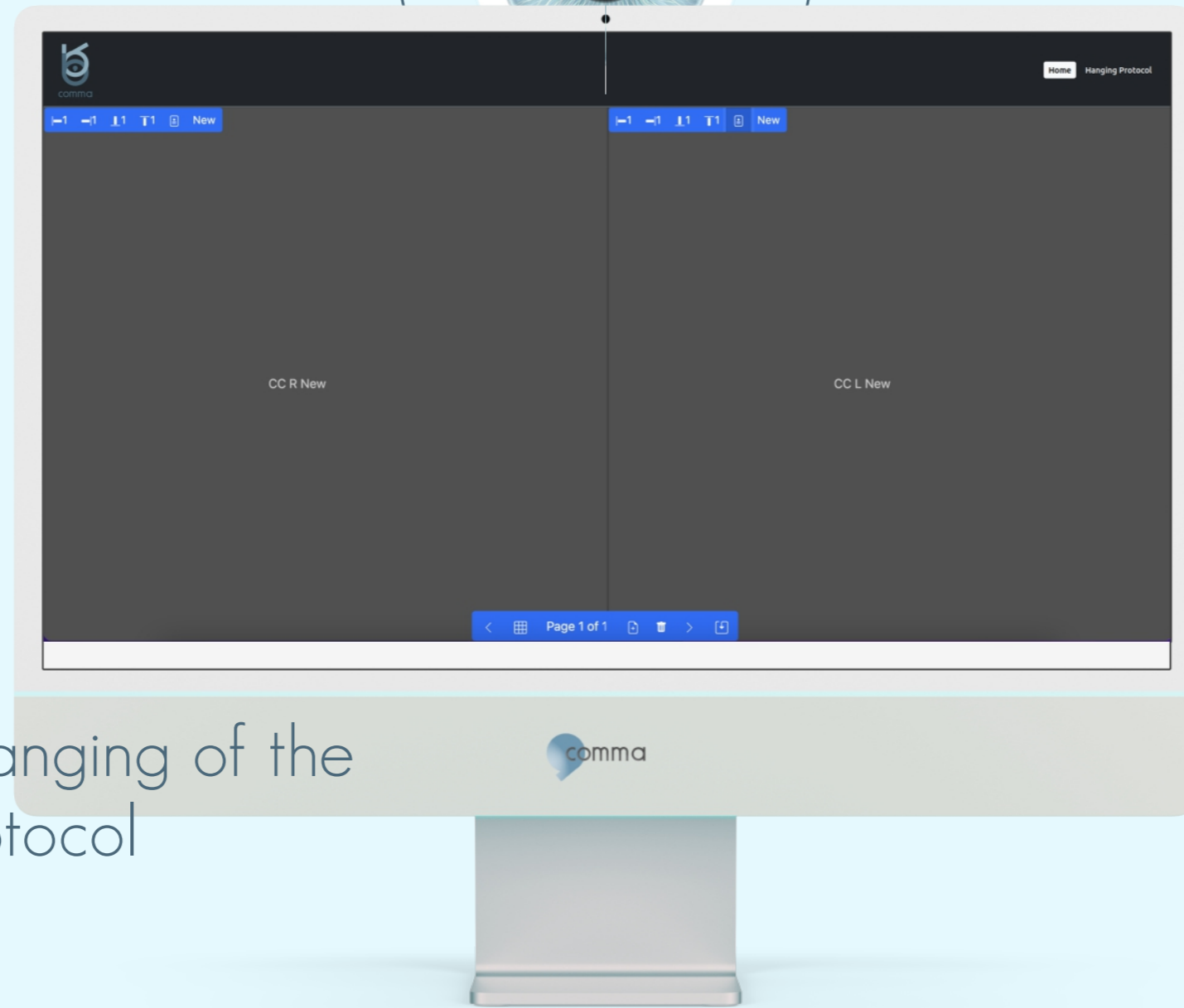
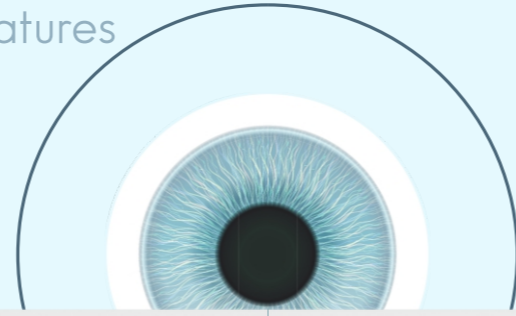
observed patients based on infection risk. Several studies show that the accuracy of radiologists decreases by 60% from the beginning to the end of a working day. This prioritization will help high-risk patients to be examined earlier and more accurately.



- Internal PACS
- The ability to set hanging the desired priority protocol
- Generating radiology reports with just a few clicks
- Reducing the need for expensive monitors
- Ability to review images remotely
- Automated installation and usage processes

GITAI

smart box features



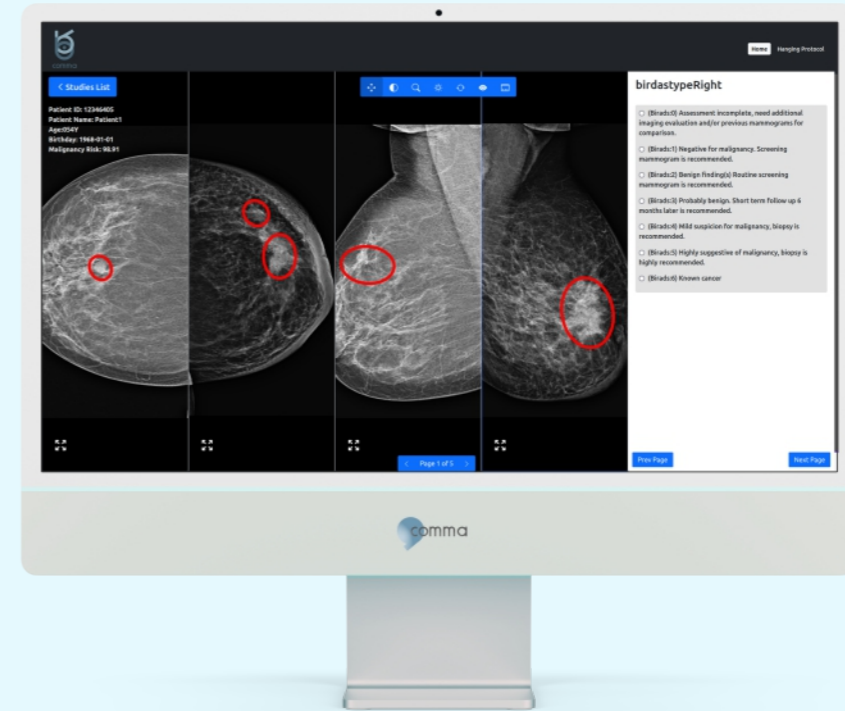
The ability to set hanging of the desired priority protocol



Internal PACS

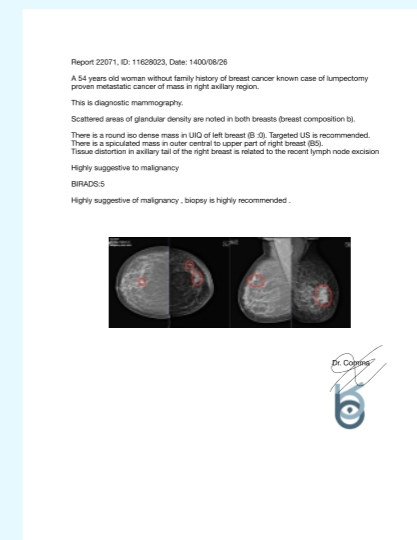
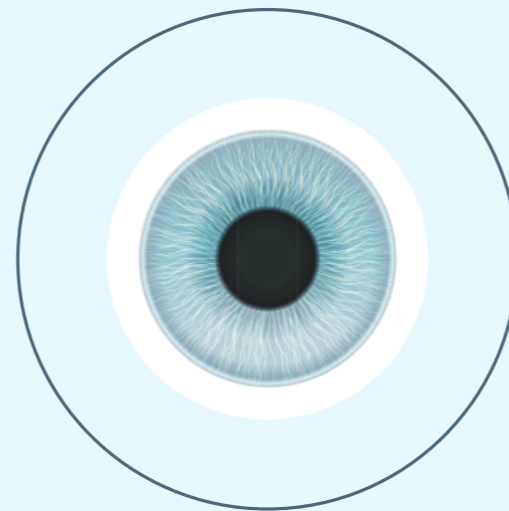


Generating radiology reports with just a few clicks



GITAI

smart box features





GITAI

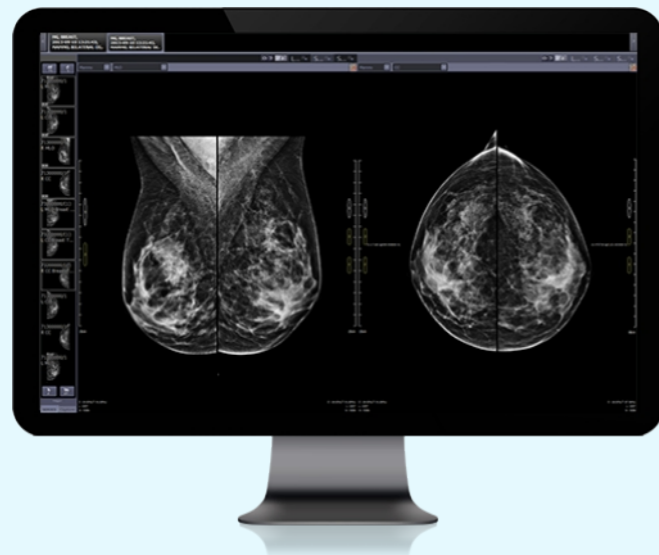
smart box features

CAVU

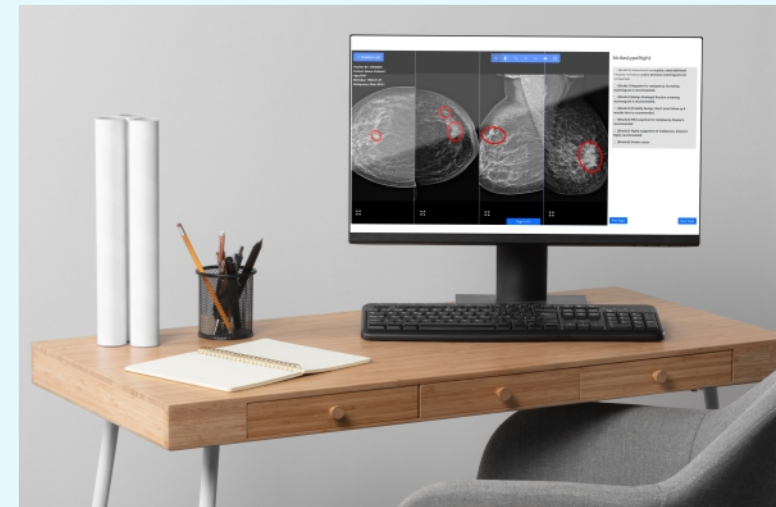
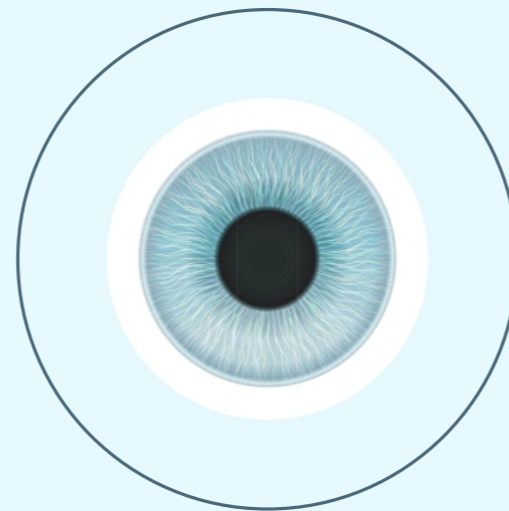
Ability to review images remotely



Don't need Expensive monitor



Reducing the need for expensive monitors

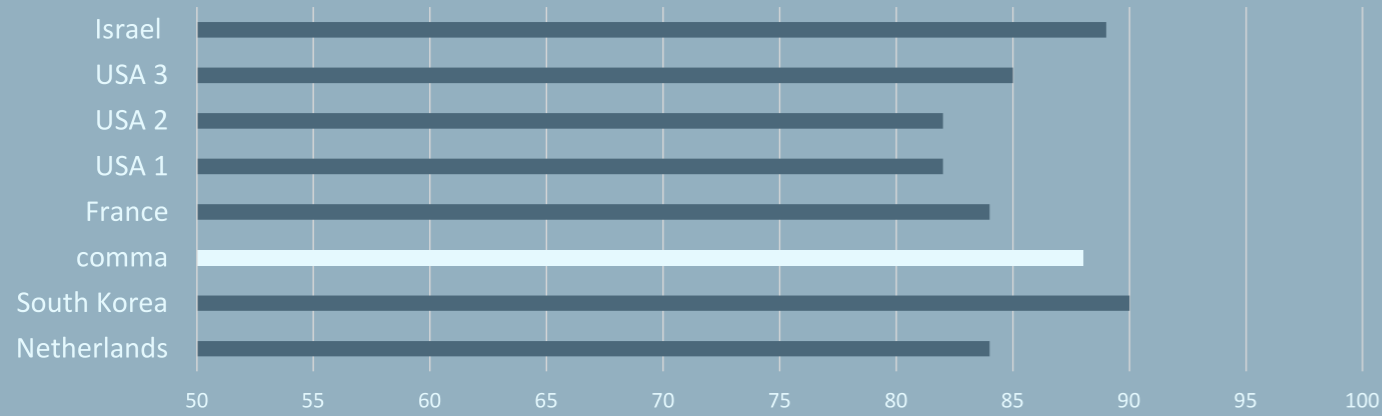


Use it any time any where

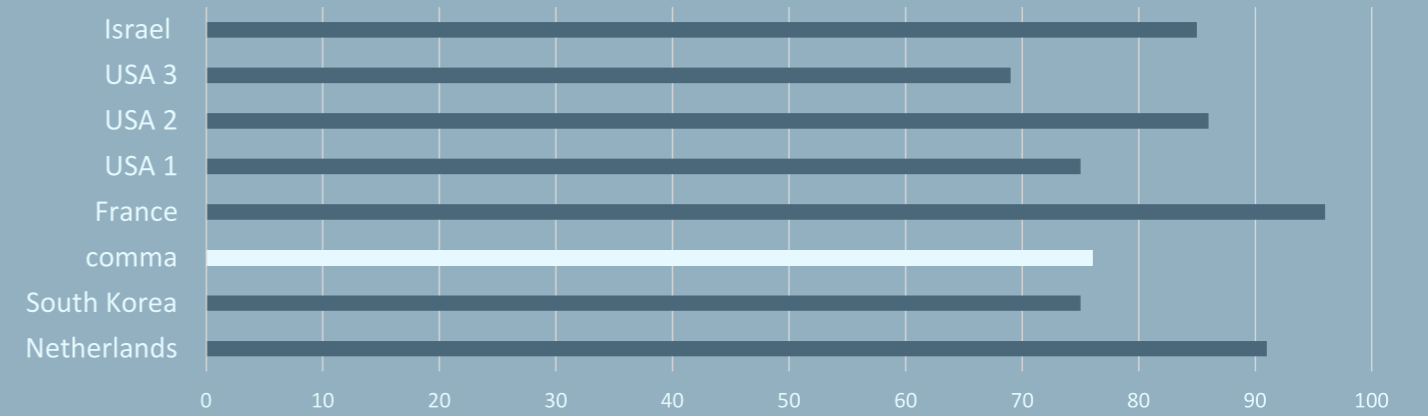




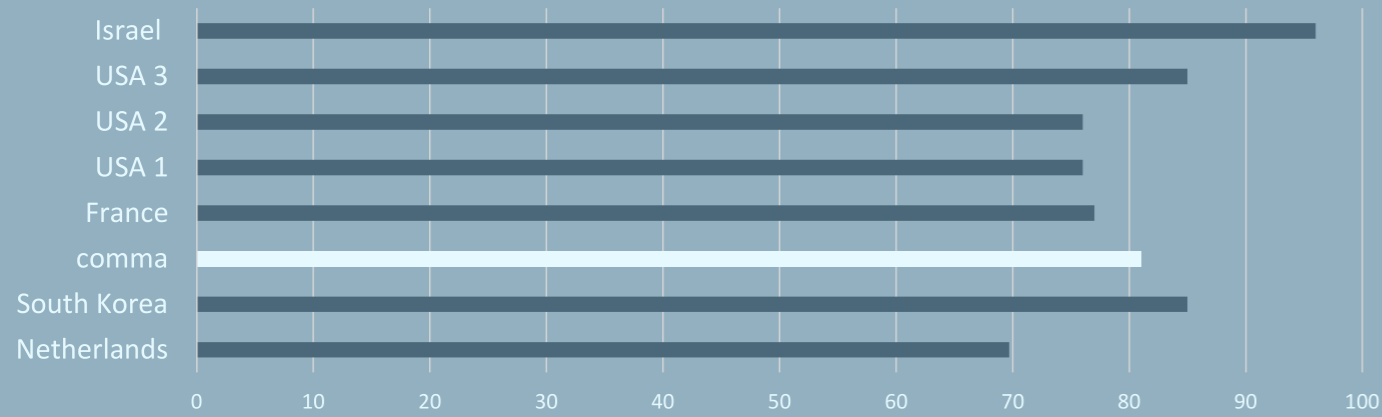
Comparison
Accuracy AUC



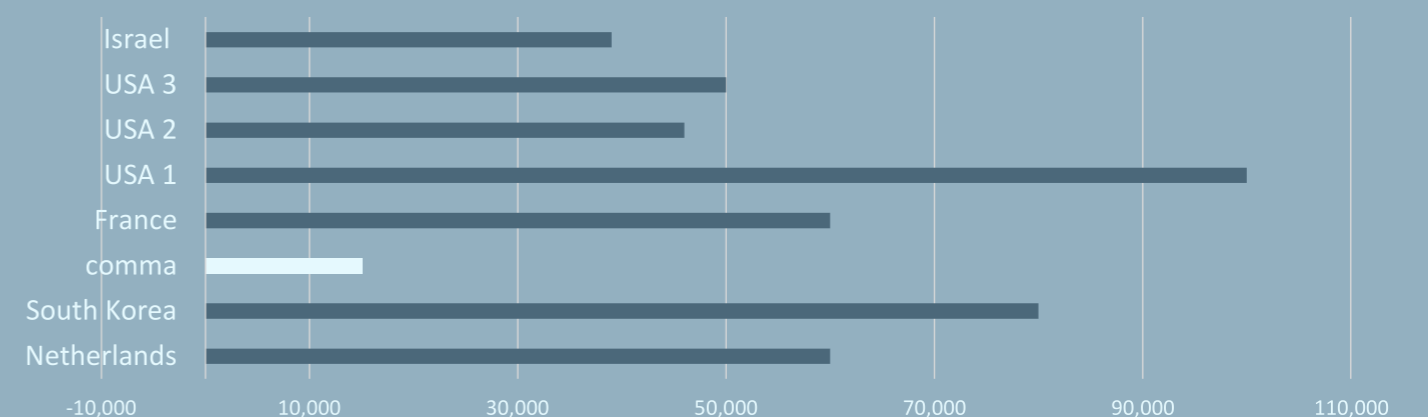
Specificity



Sensitivity



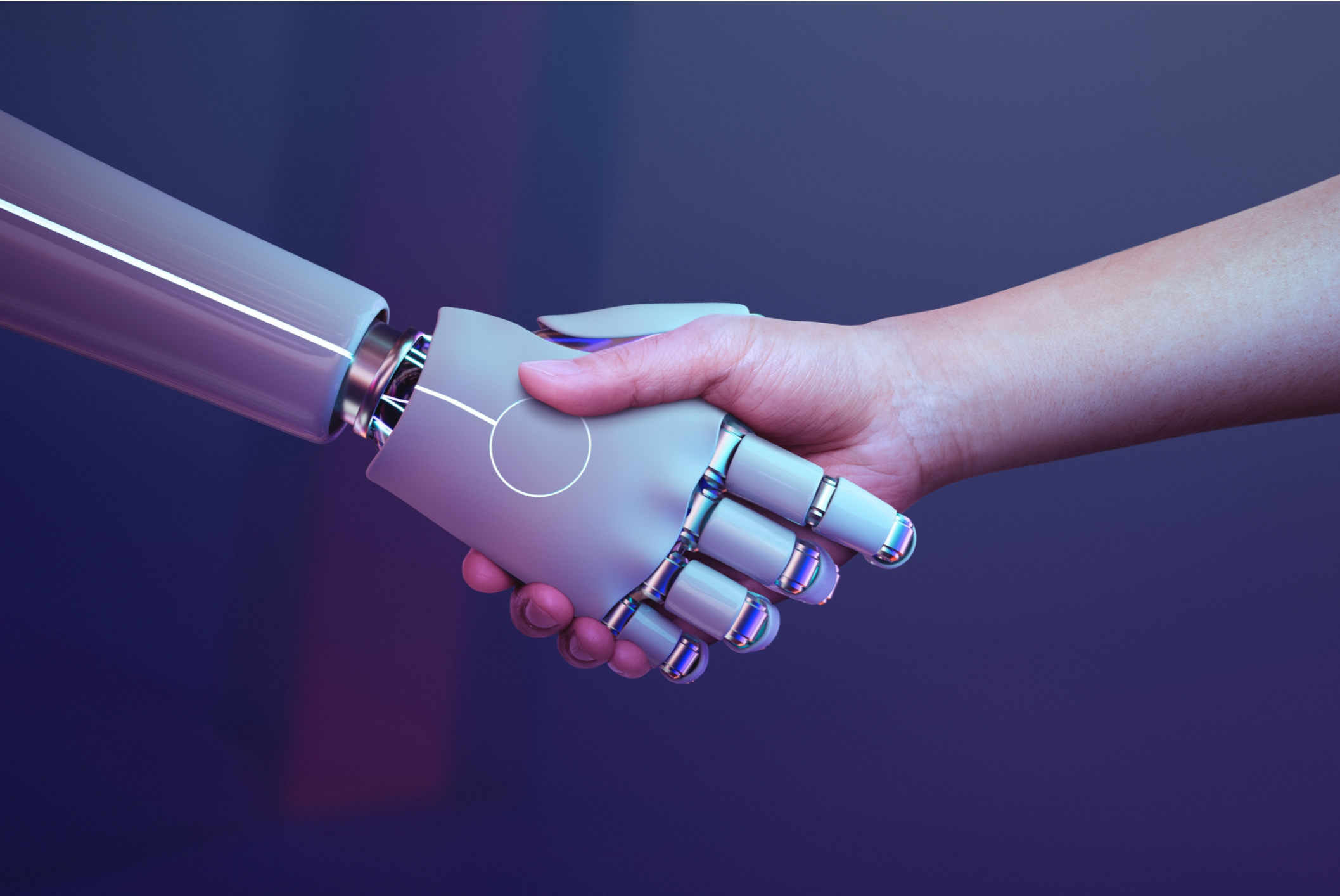
COST



Our colleagues



Eternal life



U V V V C



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