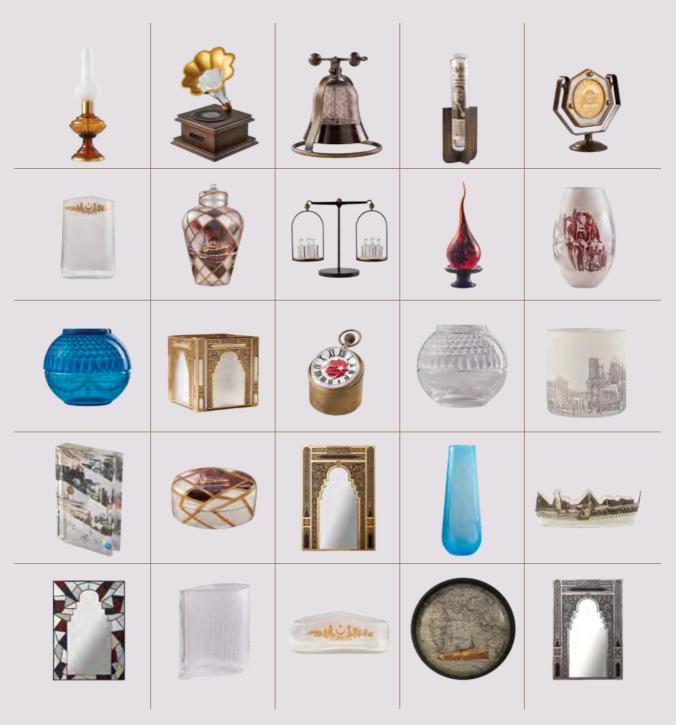


## Aururla KOLEKSIYONU



Şişecam celebrates the 100th anniversary of the Republic of Türkiye with the Gururla Collection. This special collection is now available in Paşabahçe Mağazaları.









Dear Colleagues,

I am happy to meet you once again in the new issue of Şişecam Magazine.

September was a month of great honor for the Şişecam Family in which its achievements were applauded on a global scale. On September 29, we were in Como, Italy, for the Glass Person of the Year Award Ceremony, widely known as the 'Oscar' of the glass industry. The Glass Person of the Year Award 2023 was presented to Our Chairman and Executive Member of the Board Prof. Dr. Ahmet Kırman by the Phoenix Award Committee.

It was a profoundly valuable moment of honor for all of us to witness Prof. Dr. Kırman receive the Award, which is presented to only one person in the world annually. Representatives of the global glass industry and the business world attended the special ceremony. It was very meaningful for us to witness the value we create confirmed on a global scale.

Throughout his past 17 years of leadership, Prof. Dr. Kırman has taken Şişecam to a whole new level and made it a strong global player. His speech at the Award Ceremony served as a guide for the glass industry. In his well-received speech, Prof. Dr. Kırman underlined the glass industry's great responsibility for being a solution partner in fixing the main problems of this era. He pointed on topics such as 'what the glass industry can do for a more sustainable world', 'fair income distribution', and 'equal opportunities for women'. Prof. Dr. Kırman's call for cooperation for a common solution to the industry's problems also drew strong support from the attendees.

While celebrating the 100th Anniversary of the Turkish Republic with justified honor, we also undertook a great project to express our respect and gratitude to the Republic and our Founder Mustafa Kemal Atatürk. We launched the Gururla (Proudly) Collection-one of the most meaningful collections in Şişecam's history-at Paşabahçe Stores. Historical objects, documents, photographs, and information were gathered from museums and archives were blended with Şişecam's superior design and craftsmanship for this collection. Consisting of limited-edition glass artifacts with different stories, the Gururla (Proudly) Collection reflects the idealism, enlightenment, and history of the Republic, leaving its mark to the future.

I hope you enjoy reading the new issue of Şişecam Magazine.

Görkem Elverici CEO

W. P. Runz



#### Owner & Executive Editor

Ayşegül Akyarlı

#### Headquarters

İçmeler Mahallesi, D - 100 Karayolu Caddesi, No: 44A 34947 Tuzla/İSTANBUL **T** 0 850 206 50 50

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#### **Production:**

AjansMedya Merkez Mahallesi Seckin Sokak Z Ofis No: 2 - 4A 325 Kağıthane - İstanbul **T** + 90 212 287 19 90 info@timeoutistanbul.com www.ajansmedya.com

#### **Production Director**

Seda Pekçelen

#### **Art Director**

Belma Saraççı

#### Contributors

Gizem Ünsalan

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## $\mathsf{O}\,\mathsf{N}\,\mathsf{T}\,\mathsf{H}$



Aydın

Lamp

(Enlightened)

PROF. DR. AHMET KIRMAN RECEIVES **GLASS PERSON** OF THE YEAR AWARD

Şişecam Chairman and Executive Member of the Board Prof. Dr. Ahmet Kırman Received the Glass Person of the Year Award in Como, Italy



Gururla Collection: An Exclusive Collection for the 100th Anniversary of The Republic of Türkiye.



TECHNOLOGY Meet Longevity Technologies





#### INTERVIEW

We asked Prof. Dr. Şölen Balman from the Faculty of Science, Department of Astronomy and Space Sciences about the James Webb Space Telescope



The Genome
Editing Miracle

SUSTAINABILITY
A Close Look at
Smart Cities



A R T
The Theater
Festival Begins



TREND
The Distance
Learning
Revolution





52 a g e n d a



INFOGRAPHIC
Our Values of
Equality, Diversity,
and Inclusion...

#### THE PHOENIX AWARD®

#### PROF. DR. AHMET KIRMAN

## RECEIVES THE GLASS PERSON OF THE YEAR AWARD IN COMO

Şişecam Chairman and Executive Member of the Board Prof. Dr. Ahmet Kırman received the Glass Person of the Year award, considered the Oscars of the glass industry, at a ceremony held in Como, Italy. Lincoln Brown, Chairman of the Phoenix Award Committee, presented Prof. Dr. Ahmet Kırman with the award in a ceremony attended by leading figures from the global glass industry and the world of business.

In his speech at the ceremony, Prof. Dr. Ahmet Kırman stated that the glass industry can play an active role in solving the world's fundamental problems. "The glass industry has important roles to play in solving these problems," he said. "The most significant problem among these is a lack of due to political and economic interests, despite the need for such an approach being strongly vocalized in developed countries, especially in the United Nations. To solve these problems, the glass industry must first act together on resource utilization. Common problems must be solved by avoiding corporate greed, keeping competition at the lowest level, and using common sense. Fair income distribution and equal opportunities for women in the glass industry are other important issues." Kırman emphasized that joint efforts should be increased in all areas.

Prof. Dr. Kırman added that it is of great importance for him to be deemed worthy of the Glass Person of the Year award, which is significant for the global glass industry and has been presented to those who have contributed to the industry for more than 50 years. He continued his speech by stating,

"It is a great honor, both in terms of motivation and responsibility, to be noticed and commended for our efforts in the glass industry, which I am very proud to be a part of after serving as a judge, academician, and banker." Phoenix Award Committee Chair Lincoln Brown stated that they are very pleased to present this award to Prof. Dr. Ahmet Kırman, who has made significant contributions to the development of the industry and has helped Sisecam

become a leading global company in its business segments with his inspiring leadership.

Since 2006, Prof. Dr. Kırman has been contributing to the development of the global glass industry, serving as the Chairman and fully authorized Executive Member from 2006 to 2011, Vice Chairman and CEO from 2011 to 2021, Chairman and CEO from 30 March 2021 to 1 July 2021, and Chairman as from 1 July 2021. On 28 March 2022, he was appointed as the Chairman and Executive Member of the Board. In addition to his current position, he continues to serve as the Chairman of several Sisecam companies based in Russia, Netherlands, Bulgaria, Hungary, and Romania.

To date, Prof. Dr. Ahmet Kırman has taken many strategic steps toward building the Şişecam of the future. Prof. Dr. Ahmet Kırman initiated a very important digital infrastructure transformation with the goal of making Şişecam one of the world's top three players in its core business segments—a move which was followed by the One Şişecam transformation. This transformation was the largest merger in the history of Turkish capital markets. Since 2006, when Prof. Dr. Kırman began leading Şişecam, sales of Şişecam products have increased by 3.5-fold. The number of employees rose from 15,000 to over 25.000.

Prof. Dr. Ahmet Kırman, who has been serving the development of the glass industry for 17 years, has been honored with various awards multiple times due to his contributions to the industry and the regions where Şişecam operates. Prof Dr Kırman was honored the "President's Award" by the International Commission on Glass (ICG). He has been awarded with the honor of "Cavaliere" of "the Order of the Star of Italy," nominated by the Minister of Foreign Affairs and bestowed by the President of the Italian Republic. He has been honored by the President of Tatarstan with the "Medal of Valorous Labor" and has been honored with the "Medal of Appreciation" due to his contributions to the economic development of Targovishte, Bulgaria. He was also awarded the "Chairman of the Year" at the Le Fonti Awards, Italy's leading economics media platform.





We can solve the world's fundamental problems with common sense.

#### THE PHOENIX AWARD®

During his visit to Como, Italy,
to receive the Glass Person
of the Year Award, Şişecam
Chairman and Executive Member
of the Board Prof. Dr. Ahmet
Kırman gave an interview to
Bloomberg HT Editor-in-Chief
Açıl Sezen. You can watch the
full interview on <u>Şişecam's</u>
YouTube channel.





#### PLEASANT MOMENTS FROM THE AWARD CEREMONY







Prof. Dr. Ahmet Kırman poses with the Şişecam team at the Glass Person of the Year Award Ceremony



# Anniversary of The Republic of Türkiye Anniversary of The Republic of Türkiye



in 1935 as a bold entrepreneurial story out of the young The Republic of Türkiye, Şişecam continues its global growth journey. Witnessing 88 out of the Republic's 100 years, Şişecam builds a future in line with the goals of its founder, the Great Leader Mustafa Kemal Atatürk, with its 24 thousand employees, its unique culture, its investments, and the Republican values at its core. Sisecam celebrates the 100th anniversary of The Republic of Türkiye with the Gururla Collection. Presented to art-loving collectors at Paşabahçe Mağazaları, the Gururla Collection consists of 26 limited-edition items. Commemorating 100 years since The Republic of Türkiye gained full independence in 1923, all of the glass pieces in the Gururla Collection were designed based on historical objects, documents, photographs, and historical information from museums, archives, and various collections. Each object in the Gururla Collection has an impressive story that points to an important event in history. Here are the objects in the collection, of which only 2023 items were produced:

#### 1935 CANDY BOWL

The foundations of Türkiye's first bottle and glass factory were laid in Beykoz Paşabahçe in 1934 by then-Prime Minister İsmet İnönü and the Minister of Economy Celal Bayar, under the directives of the Great Leader Mustafa Kemal Atatürk. In 1935, the first glass sugar bowl produced at the Paşabahçe Factory was presented as a gift to Atatürk. The 1935 Sugar Bowl was designed and brought to life inspired by the first Paşabahçe-produced sugar bowl gifted to Atatürk.





#### YANKI (ECHO) GRAMOPHONE

Inspired by a gramophone exhibited in the Republic Museum, the gramophone combines the sound and promise of the enlightenment of the Republic with the purity of glass in a nostalgic approach. Compatible with smartphones, this piece offers an unforgettable experience to those who want to listen to their favorite playlist on a stylish and meaningful gramophone.

#### ISTIKLAL MIKROFON (INDEPENDENCE MICROPHONE)

Inspire by the microphone from which Atatürk delivered his 10th Anniversary Speech at the Republic ceremony held at the Ankara Hippodrome in 1933, this special piece reflects the Turkish nation's love of freedom and independence. All of the relief patterns on this handmade glass item are handcrafted and decorated with 24-carat gold.



istiklal Mikrofon (Independence Microphone)

#### MINNET SAATI (WATCH OF GRATITUDE)

A pocket watch prevented Atatürk from being wounded by shrapnel during the battles at Conkbayırı. Without that watch, perhaps the War of Independence would not have been won, and the Republic would not have been declared. For this reason, the watch that saved Atatürk's life was named the Minnet Saati. The Minnet Saati comes with an authentic design that combines its namesake with the clock in the Parliament used to proclaim the Republic.

#### 1919 BAŞLANGIÇ (THE BEGINNING) BOX AND VASE

On May 15, 1919, İzmir was occupied, and the following day Atatürk departed from Istanbul to Samsun on the Bandırma Ferry as the Inspector General of the 9<sup>th</sup> Army. For this reason, the 1919 Başlangıç Box and 1919 Başlangıç Vase feature Firuz Aşkın's painting of the Bandırma Ferry, which is on display at the Naval Museum. The segmented painting on the box emphasizes the state of the homeland and the nation at that moment.

#### CUMHURİYET (REPUBLIC) BELL

The parliamentary bell, which started ringing with the opening of the Grand National Assembly of Türkiye (GNAT) on the afternoon of April 23, 1920, became the voice of national sovereignty. All the decisions that made Türkiye independent, and all the revolutions that modernized the country, echoed with the sound of this bell. The stylized rug patterns that adorn the ceilings of Anitkabir were used on the Cumhuriyet Bell in reference to Atatürk who convened the parliament, to Anatolia where the parliament was convened, as well as to the people.

#### **AYDIN (ENLIGHTENED) LAMP**

Until the beginning of the 20<sup>th</sup> century, gas lamps were used as a means of illumination in homes, streets, public spaces, and everywhere electricity could not reach. When it opened in 1920, the GNAT was illuminated by a large gas lamp brought from a nearby coffee house. The Aydın Lamp was inspired by the gas lamp that illuminated the first GNAP as a symbol of The Republic of Türkiye moving from darkness to light. This lamp is a modern glass reinterpretation of the gas lamps in the Republic Museum and the War of Independence Museum.







Cumhuriyet (Republic) Bell



#### ASIRLIK (CENTENNIAL) MIRROR AND CANDLE HOLDER

The Asırlık Mirror was inspired by the aesthetic form and elegant patterns of the old mirrored door of the Second Parliament Building. The mirrored door—which is currently exhibited in the Second Parliament Building—has turned into a dazzling mirror that reminds us of the importance of national sovereignty while reflecting the enlightenment and modern wealth of the Republic. Likewise, the Asırlık Candle Holder symbolizes the everlasting Republic. The specially designed Asırlık Candle Holder is a rare piece that once again reminds us all of the importance of national sovereignty while reflecting the enlightenment of The Republic of Türkiye.

#### ASIRLIK MOZAİK (CENTENNIAL MOSAIC) MIRROR

The mirrored door on display in the Second Parliament Building has been transformed into a mirror where geometric patterns and modern pieces come together to remind us of the importance of national sovereignty while reflecting the enlightenment and modern wealth of the Republic. The Asırlık Mozaik Mirror was handcrafted exclusively for Paşabahçe Mağazaları.

#### **ASIRLIK (CENTENNIAL) PLATINUM MIRROR**

The Asırlık Platinum Mirror was designed to commemorate the 100<sup>th</sup> anniversary of the Republic, inspired by the aesthetic form and elegant patterns of the mirrored door which formerly stood at the entrance of the Second Parliament Building. All of the relief patterns on the Asırlık Platinum Mirror were handcrafted and decorated using 24-carat platinum.



Asırlık Mozaik (Centennial Mosaic) Mirror



Asırlık (Centennial) Platinum Mirror



Karadeniz Vapuru Rota (Karadeniz Steamer Route) Tableau



#### CUMHURİYET ATEŞİ (THE FLAME OF THE REPUBLIC)

Cumhuriyet Ateşi was inspired by Mustafa Kemal Atatürk's words, "I am sending you out as sparks, you must return as torches." In the reliefs on the Revolution Tower in Anıtkabir, the dying torch held by a weak hand symbolizes the collapsing Ottoman Empire, while a strong hand raises the flaming torch towards the sky, symbolizing the new Republic of Türkiye. Cumhuriyet Ateşi is based on the work of Nusret Saman, one of the first sculptors sent abroad on a state scholarship by The Republic of Türkiye.

#### HİTAP (ADDRESS) VASE

With his Address to the Youth, Atatürk built a bridge from the past to the future, from 1919 to today and tomorrow. Designed in the form of a paper bale folded in half, the Hitap Vase features the Address to Youth. This composition symbolizes the continued brightness of The Republic of Türkiye.



Karadeniz Vapuru (Karadeniz Steamer) Gondola

#### KARADENİZ VAPURU (STEAMER) GONDOLA AND ROUTE (ROTA) TABLEAU

In 1926, The Republic of Türkiye's most original promotional project was realized and a floating exhibition on the Karadeniz Vapuru and sent to European ports. Inspired by the ferry which introduced our Republic to Europe, all the relief patterns on the Karadeniz Vapuru Gondola were made by hand. Karadeniz Vapuru Rota Tableau was created by combining the Black Sea Ferry with the world map.

#### MÜRŞİT KİTAP (MENTOR BOOK)

Mürşit Kitap was designed as a tribute to 100 years of Republican accumulation, inspired by Atatürk's quote, "The truest guide is knowledge and science." The

handmade Mürşit Kitap features relief patterns which are all handcrafted.

#### ZAMAN KAPSÜLÜ (TIME CAPSULE)

Zaman Kapsülü references both the past and future of The Republic of Türkiye. Inside the Time Capsule, which represents the development of the Republic without succumbing to time and its journey into the future, there is a page published in the Ulus newspaper for the 14<sup>th</sup> anniversary of The Republic of Türkiye. The capsule reflects Atatürk's immortal ideas, the enlightenment shaped by those ideas and the ideal of "rising above the level of contemporary civilizations."









İlkeler Terazisi (Scale of Principles)

#### **ILKELER TERAZISI (THE SCALE OF PRINCIPLES)**

Inspired by Atatürk's Principles, the İlkeler Terazisi represents the progress of The Republic of Türkiye in balance and order. When one of the principles—written on the weights on the balance—is removed, the balance and order of the scale, and thus the Republic, is disrupted. The İlkeler Terazisi is a very meaningful piece that emphasizes the progress of the Republic in balance and order, and the concepts of equality and justice.

#### PAYIDAR (EVERLASTING) VASE AND GONDOLA

The Payidar Vase and Gondola symbolize the power of the Turkish Grand National Assembly, the importance of the War of Independence led by Atatürk, the value of the hard-won peace, and the continuity of The Republic of Türkiye. All of the relief patterns on the Payidar Vase and Gondola, made of handmade glass, were handcrafted using gold gilding.

#### ÖNDER (LEADER) VASE

An aesthetic banner was created with the red of our flag on the glass of the Önder Vase, which represents Atatürk's identification with the people. On the vase are reliefs from Anıtkabir, namely the August 30<sup>th</sup> Field Battle of the Commander-in-Chief; the people; the angel offering the victory wreath; and a stylized version of the sculpture by Hüseyin Özkan Anka representing Turkish youth, Turkish intellectuals, Turkish soldiers, and Turkish peasants.

#### **DEVRIM (REVOLUTION) VASE**

The Devrim Vase features the rising youth in the foreground and the new alphabet in the background. The words "Republic," "Forever," and "Proudly" can be seen on four sides of the vase with the dates 1923-2023. This design depicts the youth who learned to read and write and who became enlightened with the Alphabet Revolution, as well as 100 years of development for The Republic of Türkiye.

#### MİMARİ (ARCHITECTURE) CANDLE HOLDER

With the Republic, cities in Türkiye were reshaped with a modern architectural approach. The zoning plan of Ankara was drawn up by the German Hermann Jansen in 1927. Famous architects such as Vedat Tek,

Kemalettin the Architect, Bruno Taut,

Clemens Holzmeister, Ernst Arnold Egli, and others created important architectural works throughout the country. With its special design, the Mimari Candle Holder is a tribute to the remarkable architectural structures of The Republic of Türkiye.





## PRODUCT RANGE EXPANDING

NEW ITEMS ADDED TO THE HISTORY-THEMED COLLECTIONS BY PAŞABAHÇE MAĞAZALARI.

Offering thousands of products and ideas for home and life, Paşabahçe Mağazaları added brand-new items to its History-Culture-Glass Collections and its boutique product range. The Şaheste Vase and Şaheste Gondola added to the Ottoman Collection are favorites among history buffs. The patterns on these 100-percent-handmade items are inspired by the caftan with reed leaves and floral ornaments that Sultan Suleiman the Magnificent had made for his son, Şehzade Mustafa. Meanwhile, the Glaze Bowl draws inspiration from the decorative art of illumination to feature Rumi motifs on a tile plate, reflecting Paşabahçe's craftsmanship and mastery.









#### A MAGICAL TOUCH TO HOMES AND DINING TABLES

SHELVES ARE FULL OF BRAND-NEW PRODUCTS THAT BEAUTIFY LIVING SPACES.

Paşabahçe Mağazaları presented its new products to customers, including the Retro Wall Plates, which lend color to walls by playing with light and shadow. The Alya series of tea, water, and beverage glasses are both aesthetic and elegant. Floral and bird patterns adorn glasses noted for their sleek design. Meanwhile, the handmade plates feature patterns obtained by mixing granulated glass.





## THE GREAT OUTDOORS

PAŞABAHÇE MAĞAZALARI OFFERS INTRIGUING IDEAS AND TIPS FOR OUTDOOR DECORATION.

Paşabahçe Mağazaları's outdoor product range offers many options for balcony, terrace, and garden decoration. You can create eyecatching corners with the Stark, Norden, and Century ceramic pots. Noted for its stylish design, the Horizon Lantern adds a pleasant ambience to the setting, especially during evening. The line of Toros metal decorative objects available at different heights look stylish in gardens and balconies. The Ilo candle holders designed by the Nude Design Team are a favorite among those who like to use candles in gardens, balconies, and terraces.







PARTICIPANTS IN PAŞABAHÇE MAĞAZALARI'S WORKSHOP DESIGNED THEIR OWN CANDLES.

Paşabahçe Mağazaları organized a workshop at its first experience store equipped with digital solutions and services in Erenköy, Istanbul. The KULÜP Card members and guests who participated in the workshop had the opportunity to learn about candle types and design their own candles. The candles designed in cocktail glasses were gifted to the participants as a memento of the day.









#### NUDE LEFT ITS MARK ON SUMMER

SUMMER WAS QUITE THE ACTIVE SEASON FOR NUDE.

#### A PHOTO SHOOT REFLECTING THE SUMMER SPIRIT

NUDE's summer photo shoot highlighted elegant tables featuring unique glasses for enticing cocktails. Focused on the Neo collection, the eyecatching photo shoot was designed by Erdem Akan.

#### A SOURCE OF INSPIRATION FOR GATHERINGS

NUDE Glass held a collaboration on social media for those who enjoy hosting their guests outdoors. Content creator Clara Nanut (@gour.mode) created three different outdoor gathering looks for NUDE in the photo shoot, which was set in a garden in Italy. A gathering with refreshing sangria, a romantic candlelit cocktail date, and Sunday breakfast were the themes explored in the content, which was shared on the @nudeglass Instagram account as Reels.

#### **SUMMER COCKTAILS**

NUDE Glass shared six refreshing summer cocktail recipes on social media. The summer cocktails prepared by cocktail designer and photographer @thewestmount drew attention for their presentation. The cocktails were served in NUDE brand glasses, with the images shared on the @nudeglass Instagram account.

#### THE WORLD'S 50 BEST RESTAURANTS

THE EVENT ANNOUNCING THE WORLD'S 50 BEST RESTAURANTS TOOK PLACE WITH NUDE AS THE OFFICIAL GLASS SPONSOR.

Known for selecting the best in the world of gastronomy, the World's 50 Best Restaurants event took place on June 20 in Valencia, Spain. Restaurateurs and chefs came together at the event to recognize the world's most prestigious restaurants and chefs. NUDE was the official glass sponsor of the event, which saw special cocktails prepared by worldrenowned mixologist Remy Savage served at the NUDE stand, with the NUDE Savage collection. NUDE has sponsored the event for the past three years, where this year Central was named the best restaurant in both South America and the world.

www.theworlds50best.com



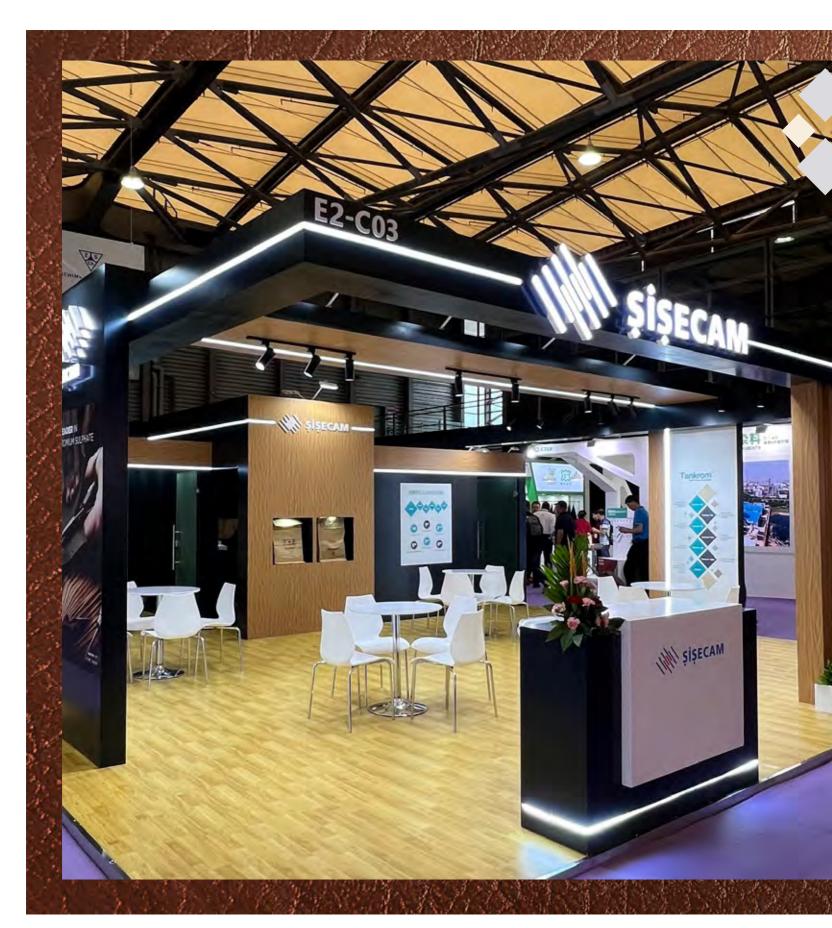


## SPECIAL RECIPE



NUDE GLASS CELEBRATED INTERNATIONAL TEQUILA DAY WITH A COCKTAIL RECIPE.

Cocktail designer and photographer @thewestmount prepared a cocktail called The Paloma on the occasion of International Tequila Day. Those who want to prepare this cocktail, which is very easy to make and stands out with its impressive presentation, can take a look at the stages of cocktail preparation featured on the @ nudeglass Instagram account. The Paloma cocktail is served in a Tall Cocktail Glass from the circus-inspired Big Top collection.





## OPERATIONAL EXCELLENCE DEVELOPMENT PROGRAM LAUNCHED

A LAUNCH EVENT WITH THE ATTENDENCE OF ŞİŞECAM CEO GÖRKEM ELVERİCİ.

The Operational Excellence Development Program launch event was held in July at the TUTOM Auditorium. The event hosted approximately 300 people, with 1,703 Şişecam employees from different parts of the world tuning in via the internet. The program, which was launched to support Şişecam's focus on continuous improvement and strategies of operational excellence, is expected to generate US\$25 million in benefits through more than 350 continuous improvement projects over two years. The event started with an opening speech by Şişecam CEO Görkem Elverici and continued with presentations by Şişecam Academy Director Deniz Hasanbaş, Process and Continuous Development Director Arzu Aras, Operational Excellence Manager Ozan Muslu, and guest speakers. Focusing on sustainable value creation and competitive advantage, the launch ended with a certificate ceremony.





#### CEO GATHERINGS CONTINUE

ŞİŞECAM CEO GÖRKEM ELVERİCİ GETS TOGETHER WITH EMPLOYEES.

Şişecam CEO Görkem Elverici once again came together with Şişecam employees working in different departments in recent months. Elverici met with the Supply Chain, Production and Sales functions in July and with the Sales function at the end of August. The events are planned to continue with the participation of other functions.



#### ŞIŞECAM BECOMES A SIGNATORY OF THE WOMEN'S EMPOWERMENT PRINCIPLES (WEPS)

ŞİŞECAM BECAME A SIGNATORY OF THE PRINCIPLES DEVELOPED BY THE UNITED NATIONS.

Considering gender equality as an integral part of its inclusive corporate culture, Şişecam became a signatory of the United Nations Women's Empowerment Principles (WEPs). As part of its sustainability strategy CareforNext, Şişecam prioritizes diversity and inclusion and works to adapt factory standards to accommodate female employees in order to support women's participation in the workforce in all areas. Mentoring practices within the Women Expression program provide mentoring as a source of inspiration to women in managerial positions. Aiming to increase the ratio of female employees from 24.2% as of 2023 to over 25%, Şişecam will continue to emphasize the importance of gender equality for the entire ecosystem and use its resources to make a difference.





#### ŞİŞECAM'S 2022 ANNUAL REPORT RECEIVES 6 AWARDS AT ONCE

Şişecam's 2022 Annual Report added to its long list of awards by taking home new titles given by international award organizations. Sişecam received a total of six awards at the League of American Communications Professionals (LACP) Vision Awards, one of the world's most prestigious platforms that sets the standards of excellence in the field of communications, and at the Annual Report Competition (ARC), known as the Oscars of Annual Reports.

Şişecam won four awards at the Vision Awards organized annually by the League of American Communications Professionals (LACP) since 2001. The awards included Platinum and Regional





Special Achievement for its printed report and Gold and Regional Achievement in its own category for its digital report. Şişecam's 2022 Annual Report ranked eighth in the EMEA (Europe, Middle East and Africa) Region and was also recognized as one of the Top 20 in Türkiye.

Şişecam received two separate awards in the Glass Production category at this year's 37th Annual Report Competition (ARC). Şişecam won the Silver Award in the Traditional Annual Report category and the Bronze Award in the Interactive Annual Reports category. Thanks to its 2022 Annual Report, Şişecam was the only company in its sector to receive awards in both categories.

#### THE 500 LARGEST COMPANIES IN TÜRKİYE REVEALED

ŞİŞECAM IS 12TH ON THE LIST.

Şişecam ranked 12<sup>th</sup> this year in the list of Türkiye's 500 Largest Companies, which is updated annually by the monthly business magazine Capital. In the list, which is organized according to the total turnover data for 2022 of private companies operating in Türkiye, Şişecam rose 11 places compared to last year and maintained its leadership in the ceramic-glass sector.



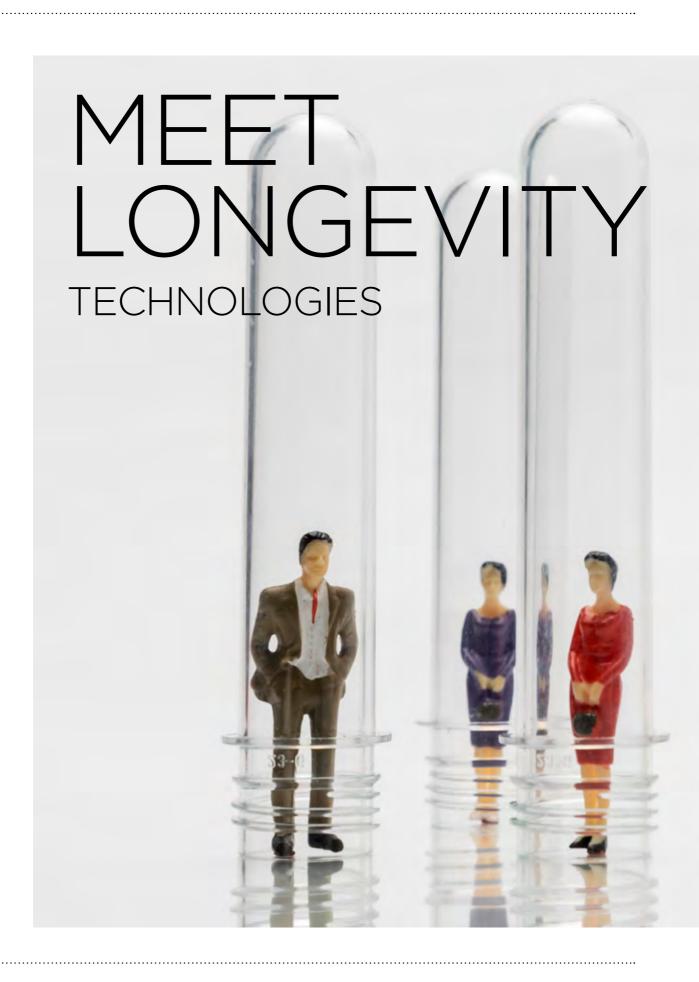


#### ŞİŞECAM INTRODUCES SPECIAL GLASS FOR ELECTRIC VEHICLES

ŞİŞECAM IS CONTRIBUTING TO A CLEAN FUTURE.

The ZevRA project (Zero Emission Electric Vehicles Enabled by Harmonised Circularity), which aims to contribute to a clean and competitive future by improving the circularity of electric light-duty vehicles, has received 250,000 euro of support from the European Union's (EU) HORIZON Europe program. The project, coordinated by the Fraunhofer Institute–Europe's largest applied sciences, research, and development organization–will be carried out with the contributions of 28 partners, including automotive companies, in line with the EU's zero carbon emission target for 2035. Within the scope of the project, Şişecam plans to produce automotive glass with a low carbon footprint and high added value. Throughout the 36-month project, Şişecam will produce solar energy glass to support vehicle batteries and reduce the use of natural resources and chemicals through innovative production techniques.

# Z





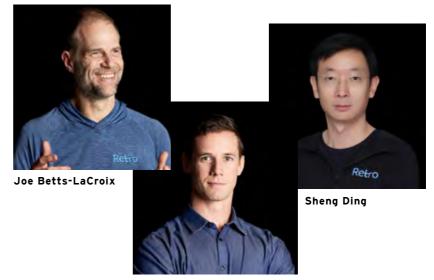
TECHNOLOGIES AIMING TO PROLONG LIFE EXPECTANCY ARE GENERATING A LOT OF BUZZ AROUND THE GLOBE. ARE YOU READY TO DISCOVER THE FASCINATING INVESTMENTS MADE IN THESE TECHNOLOGIES?

There is no doubt that humanity has always been in search of a longer, healthier, and happier life. As advances in science and medicine are increasingly helping us to understand the details of the aging process and mitigate its effects, in recent years, humanity has had a growing interest in living a longer and higher-quality life.

A recent development illustrates the growing interest in longevity technologies and research. Sam Altman, the 38-year-old CEO of OpenAI-the artificial intelligence company that made a name for itself as the developer of DALL-E and ChatGPT-has once again made headlines with an interesting investment. While OpenAI is working to uplevel the functionality of the miracle known as ChatGPT, Altman is currently researching what longevity technologies can offer to humanity. To this end, Altman recently announced a US\$180 million investment in Retro Biosciences, a bio-tech startup that aims to extend human life by 10 years. Founded as recently as April 2022, Retro Biosciences drew all eyes on itself by convincing Altman to make such a large investment. So, what exactly does Retro Biosciences promise to humanity, and what are some of its current projects?

#### RETRO BIOSCIENCES AND LONGEVITY STUDIES

Founded by Joe Betts-LaCroix,
Sheng Ding, and Matt Buckley, San
Francisco-based Retro Biosciences
is a startup that aims to extend the
average human life expectancy by
10 years. A scientist whose previous
affiliations include Harvard and
MIT, Joe Betts-LaCroix has proven
himself in various startups before.
He knows Sam Altman from Y
Combinator, where they worked
together. Matt Buckley completed his
PhD at Dr. Anne Brunet's lab, which
conducts aging-focused research



Matt Buckley

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Retro Biosciences CEO Joe Betts LaCroix with employees on top of the shipping containers used as the company's lab space...

at the prestigious Stanford University. Sheng Ding is another scientist who is a professor at Tsinghua University's School of Pharmaceutical Sciences. In short, all three founders of the Retro Biosciences startup are inspiring individuals who are successfully pursuing their careers. So, what exactly does the trio want to do at Retro Biosciences? Firstly, the team emphasizes that about 90% of healthcare spending in the US goes to aging-related diseases, and that a similar trend can be

seen in the rest of the world. Of course, the causes of agerelated diseases are the various factors of aging that we have not had the opportunity to change so far. Retro Biosciences aims to change this by focusing on the cellular factors of aging. According to the team, it would have been impossible to develop such a technology as recently as 10 years ago, but today, advances in fields such as genetics and biology have given us the opportunity to do so. The cellular reprogramming



OpenAl's 38-year-old CEO Sam Altman has invested US\$180 million in postponing death.

mechanism and plasma-based therapies they are working on are based on the latest developments in the world of science. Long story short, thanks to the relentless work of the scientific community, it may be possible to extend the human lifespan by a healthy decade in the future. Indeed, Retro Biosciences investor Sam Altman says he is looking forward to the therapies the startup will develop and hopes to use them himself one day.

If we look a little further behind the scenes, Sam Altman's interest in anti-aging did not start with Retro Biosciences. Company co-founders Joe Betts-LaCroix and Altman had previously considered starting another company inspired by a scientific study involving mice. It is hard not to wonder what kind of projects the startup will carry out in the coming years.

#### WHAT OTHER WORK IS BEING DONE IN THE FIELD OF LONGEVITY TECHNOLOGIES?

Bryan Johnson is one of the first names that spring to mind when it comes to a love of longevity and million-dollar projects.

With a team of 30 doctors, the 45-year-old millionaire tech entrepreneur is trying to reverse his body's aging process.

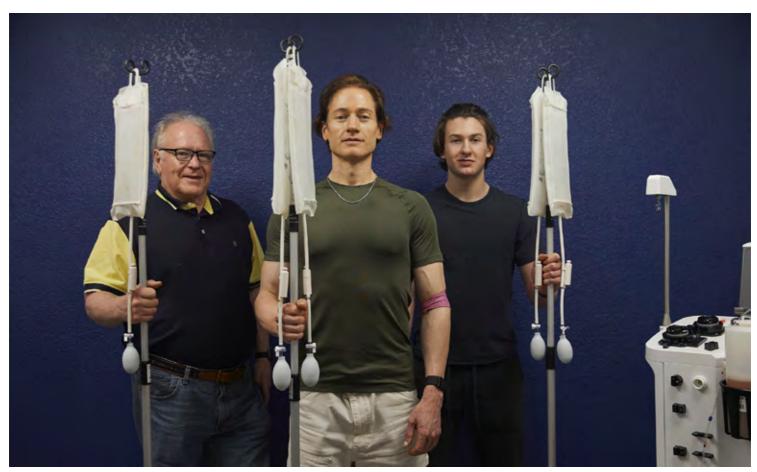
Johnson has given over his body as a sort of test subject, with the team of doctors closely monitoring every function in his body.

Led by 29-year-old medical doctor Oliver Zolman, the team's

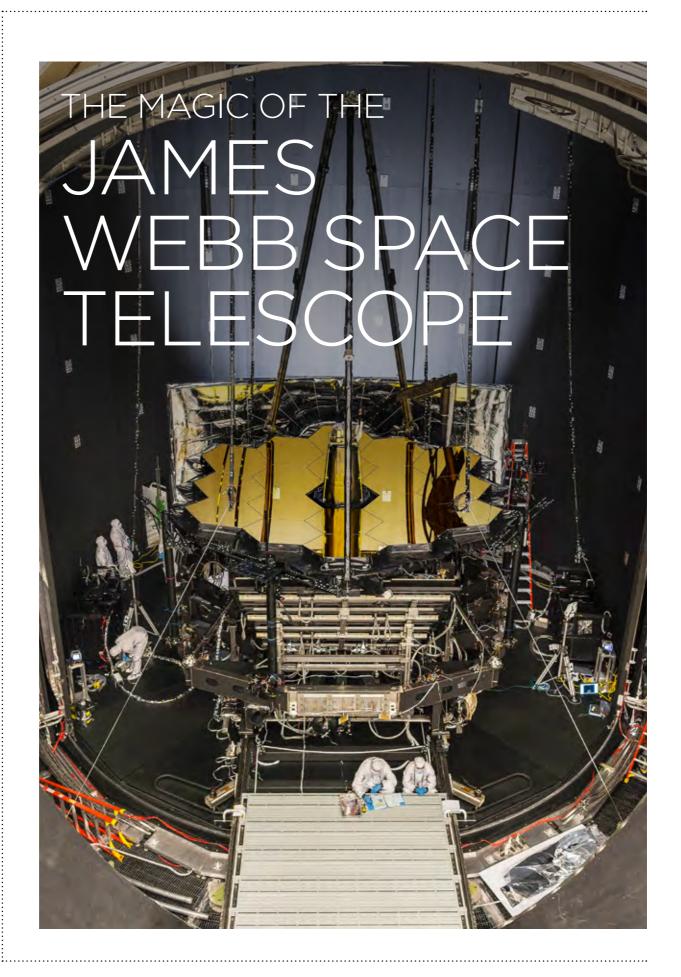
goal is to reverse the aging process of each of Johnson's organs and even keep them in the same condition as an 18-year-old. Of course, Johnson had to invest millions of dollars to get this project started. Zolman, who is willing to invest US\$2 million a year in his body for the sake of his passion for youth, even exchanges blood with his 17-year-old son and 70-year-old father.

The future looks bright for the growing longevity technologies industry. Recently, the Longevity Education Hub launched an online course with a focus on investing in longevity. The course is aimed at venture capitalists, pharmaceutical company executives, biotechnologists, and

anyone interested in longevity technology investments. It provides a comprehensive overview of the longevity space, covering the latest developments in the industry, the key players, as well as the potential risks and returns. As humanity's interest in living longer and better continues, there seems to be no end to the work being done in this field.



Bryan Johnson (center), spends US\$2 million a year to look like an 18-year-old, even trading blood with his father Richard and his son Talmage.





THE JAMES WEBB SPACE TELESCOPE CONTINUES TO MAKE EXCITING DISCOVERIES. WE ASKED **PROF. DR. ŞÖLEN BALMAN** FROM ISTANBUL UNIVERSITY'S FACULTY OF SCIENCE, DEPARTMENT OF ASTRONOMY AND SPACE SCIENCES, ABOUT THE TELESCOPE'S DISCOVERIES SO FAR—LIKE THE RECENT PHOTOGRAPH IT TOOK OF A STAR ON THE BRINK OF DEATH—AND HOW IT MAY CHANGE WHAT WE KNOW ABOUT SPACE IN THE FUTURE.

#### First, can we get to know you briefly?

After attending the American Academy for Girls (AAG-ÜAKL) for my middle and high school education, I obtained my B.S. degree from Boğaziçi University's Department of Physics. I then received my Ph.D. in Physics/Astrophysics from the Department of Physics at the University of Wisconsin-Madison before returning to Türkiye to work in the Department of Physics at the Middle East Technical University (METU). In 2005, I got tenured as an Associate Professor at METU, and was later promoted to Professor of Physics at the same institution in 2012. From 2005 to 2007, I worked at the European Space Agency with an international fellowship. In 2018, I left METU to move to Istanbul, where I began teaching as an Adjunct Professor at Kadir Has University's Faculty of Engineering and Natural

Sciences. As of July 2020, I have been a full-time Professor of Astrophysics at Istanbul University's Department of Astronomy and Space Sciences. My main research interests are astrophysics of compact objects, and observation technologies, accreting white dwarf binaries (AWBs) and nova eruptions, X-ray binaries - LMXBs, HMXBs, ULXs and supernova remnants. I am an expert in the observational analysis and interpretation of theoretical aspects in X-rays, Gamma-rays, and complementary optical wavelengths.

The James Webb Space
Telescope (JWST) continues to
pique public interest through
exciting discoveries. For those
who don't know, can you briefly
explain what the JWST is? What
does it do, and how does it work?
What are its main objectives?
The JWST is the largest and

most powerful space telescope

launched into space. It is designed to work infrared wavelengths to study and widen our scope on the earliest stages of the universal evolution and gather data to resolve galaxy and early star formation. Light leaving early galaxies takes billions of vears to reach Earth: thus, we see how they looked in the past, long years ago. As a result of universal expansion after the Big Bang, the photons are stretched in wavelength and become red shifted, best observed in infrared wavelengths. Stars and planets that are in the formation process lie hidden behind cocoons of dust that absorb visible light. The same is true for the very center of our galaxy. However, infrared light emitted by these regions can penetrate these dusty regions and reveal what is inside. The JWST will provide exceptional data and insight on star formation, planetary science, and the formation of our own

solar system. The JWST's infrared equipment will allow us to study some of the earliest stars that exploded in supernova, creating the elements necessary to build planets and form life. The Webb telescope will reveal the earliest galaxies and compare them with today's to study how they form, what gives them their shape, their mergers and collisions, as well as resolve chemical enrichment and its distribution across galaxies. Supermassive black holes (SMBHs) in the depths of space will be investigated, and their formation, evolution, and influence on their galaxies can be studied in greater detail than ever.

What do we know about the construction process of the James Webb Space Telescope, as well as its journey in space? The JWST is developed with the partnership of NASA, ESA, and Canadian space agencies (building different parts or instruments





of the space observatory). The academic and industrial partners are the University of Arizona, Ball Aerospace, L3Harris Technologies. Lockheed Martin, Northrop Grumman, and Space Telescope Science Institute (STScI). The cost of building the observatory was about US\$8-9 billion, and the expected cost of operations will be about US\$800-900 million. It is named after the NASA administrator during the Apollo Mission programs where manned exploration of the Moon was accomplished. The James Webb Space Telescope was launched successfully on December 25, 2021. Following the commissioning of the telescope and its instruments, the first scientific observations started in late June. and the spectacular first images were revealed to the public on July 12, 2022. The STScI is the JWST's science operations center. The observatory was launched into space from the French Guiana (an ESA site) utilizing an Ariane 5 rocket, a massive rocket weighing over 6 tons. The Webb Telescope's large mirror, 6.5 m in diameter, unfolded after launch. The same approach was used for

the telescope's large 21 m-by-14 m sunshields. It took about a month to reach the destination on the L2 point (lagrangian point), and the check-outs before science operations took another six months. The telescope is designed to last at least five and a half years (six months calibration plus five years of science operations), but with a goal of ten years of observations.

#### How does the James Webb differ from its predecessor, the Hubble Space Telescope?

Observing distant objects (like the first galaxies formed in the Universe) requires an infrared telescope. This is the reason Webb is not a replacement for Hubble; its capabilities are not identical. The Hubble is optimized to function at ultraviolet and visible wavelengths between 0.1 and 0.8 micron. It works on a small portion of the infrared spectrum, from 0.8 to 2.5 microns.

The Webb has a significantly larger field of view than the NICMOS camera on the Hubble (more than ~15 times the area), significantly better spatial resolution than the infrared

Spitzer Space Telescope, and improved spatial resolution over what the Hubble provides. The Hubble is in very close orbit around the Earth (LEO - Low Earth Orbit; about 90 min.), while the Webb is 1.5 million kilometers away at the second Lagrange (L2) point, which is an opposition configuration. As the Earth orbits the Sun, the Webb will orbit with it while staying fixed in the same spot in relation to the Earth and the Sun.

How do you envision this telescope becoming a turning point in astronomy and space sciences? What information have the discoveries proven to be wrong that was previously considered correct? Have the discoveries so far met the expectations of the astronomy community?

The JWST will bring about many breakthroughs in cosmology, star and planet formation and evolution, and conditions in the early stages of universal evolution like the formation and development of SMBHs and early large-scale structures. These will help us understand humankind's origins better. The technology that comes with the JWST can be used in many fields that affect human life. The mirrors made for the JWST use a Scanning Shack-Hartmann Sensor, or wavefront sensing technology which can improve the measurement of human eyes (shape) and ocular disease diagnosis while potentially improving surgical operations. There may be commercial applications for high-speed optical sensors with pulsed lasers that eliminate the effects of vibration. The near-infrared detectors developed are also being used in Earth science and national security. The cryogenic application-specific integrated circuits (ASICs) developed for

the Webb have also been used to develop programming that can help with satellite repair. There are several applications of JWST technology within the astronomy, aerospace, semiconductor, and medical industries.

It is too soon to talk about the JWST's accomplishments, as it has been operating for a year now and will do another 5-10 years of scientific observations. There are those who strongly believe that many scientific breakthroughs will be achieved, and the first year of operations has proven successful in this regard.

Projects aimed at exploring habitable exoplanets have recently gained momentum. What do you think are the main reasons for humanity's interest in space and life in space? How might the James Webb Space Telescope affect future space exploration and the possibility of life in space?

Humankind has always been interested in space exploration and the search for extraterrestrial life forms. This is perhaps an instinct to explore the unknown and understand what lurks in the skies. Moreover, it is perhaps an urge to compensate for the fact that we are not alone and that life on Earth is not unique.

Biosignatures are used to investigate the possibility of life on distant planets. Oxygen, ammonia, methane, and other gases in exoplanet atmospheres could be an indicator of biological processes. On Earth, oxygen is released by life forms—specifically, by organisms that use sunlight for energy. The best candidate worlds for detecting such biosignature gases are exoplanets orbiting small, cool, M-class red dwarf stars. Exoplanets orbiting

M-class red dwarfs offer favorable conditions for the detection of reactive gases with space telescopes. This is where the JWST comes in. Some suggest that it can detect such atmospheric biosignatures within a few months' worth of transits.

On the other hand, our first confirmed proof of life beyond Earth may not involve biology at all. It's possible that we might come across communication through electromagnetic waves like radio or find telescopic evidence of unprecedented engineering. While the search remains largely focused on non-technological life, NASA scientists have also begun to consider what technological traces of intelligent life-aka technosignatures-might look like. They wouldn't come from planets in our solar system, but rather far exoplanets that we cannot see.

Other possibilities include laser or radio pulses, signs of artificial chemicals in the atmospheres of distant planets, or Dyson spheres, which are massive structures built around stars to collect their energy.

NASA's Artemis program is another topic that's been making headlines around the world for some time. What are your expectations from this program, and which aspects of the project do you find exciting? Do you think NASA will be able to repeat the success of the Apollo project in the 1960s and 1970s with the Artemis missions?

NASA plans to use the Artemis missions, named after the sister of Apollo in Greek mythology, to establish a permanent human presence on the Moon and to help the agency form a pathway to transport humans to Mars. The Artemis I mission serves as

a stepping stone for the Artemis II and Artemis III missions, which will take humans back to lunar orbit and the lunar surface, respectively.

On November 16, 2022, NASA's Space Launch System (SLS) rocket launched the Orion spacecraft from the Kennedy Space Center for the Artemis I mission. The SLS has the most powerful rocket engine ever flown to space, even more powerful than Apollo's Saturn V rocket system which took astronauts to the moon in the 1960s and '70s. There was no crew on the Artemis I flight, but a total of 10 cubesats were aboard, with three of them focused on radiation. These included a "space weather station" to detect particles and magnetic fields, as well as to measure radiation in the Earth's plasmasphere. The other cubesats were installed to search for water as well as near-surface hydrogen around the lunar South Pole.

The Artemis II mission will take a crew of four astronauts to orbit the Moon, while Artemis III is going to result in the first human landing missions to the moon since the end of the Apollo missions in 1972. The missions will also mark the first time a woman astronaut and a Black astronaut are sent to the Moon. The Artemis program has much different goals than the Apollo missions. It includes using resources at hand like water ice and lunar soil to produce food, fuel, and building materials. After several missions in the program, a base on the Moon is foreseen. Plans also include the construction of the Lunar Gateway station, which will serve as a step to access the lunar surface in the future. NASA is also teaming up with the private sector for the Artemis program, having commissioned SpaceX to develop the landing system of

the Starship spacecraft, which will carry the crew and cargo. The system is planned to be tested in the Artemis IV mission. Meanwhile, Blue Origin will design and develop its Blue Moon lander to transport the crew to the lunar surface, which will be tested in the Artemis V mission.

We must also remember that these missions relied on the capacity available in the 1960s and 1970s. The budget for the Apollo program was about US\$25 billion, while the planned budget for the Artemis program involves the expenditure of US\$93 billion by the end of 2025, with the cost being potentially higher if the

program continues. Far more is expected from the Artemis program than what the Apollo program achieved.

I particularly find the Artemis program fascinating. Humankind will return to the Moon and build a stationary base there. Personally, I would have liked to work on the lunar base if I had the chance. However, when I look at the timelines and the delays that will occur, I would be lucky to see construction on the base completed. The Artemis missions are also a very important step for the Mars missions which will likely be launched from the lunar base.

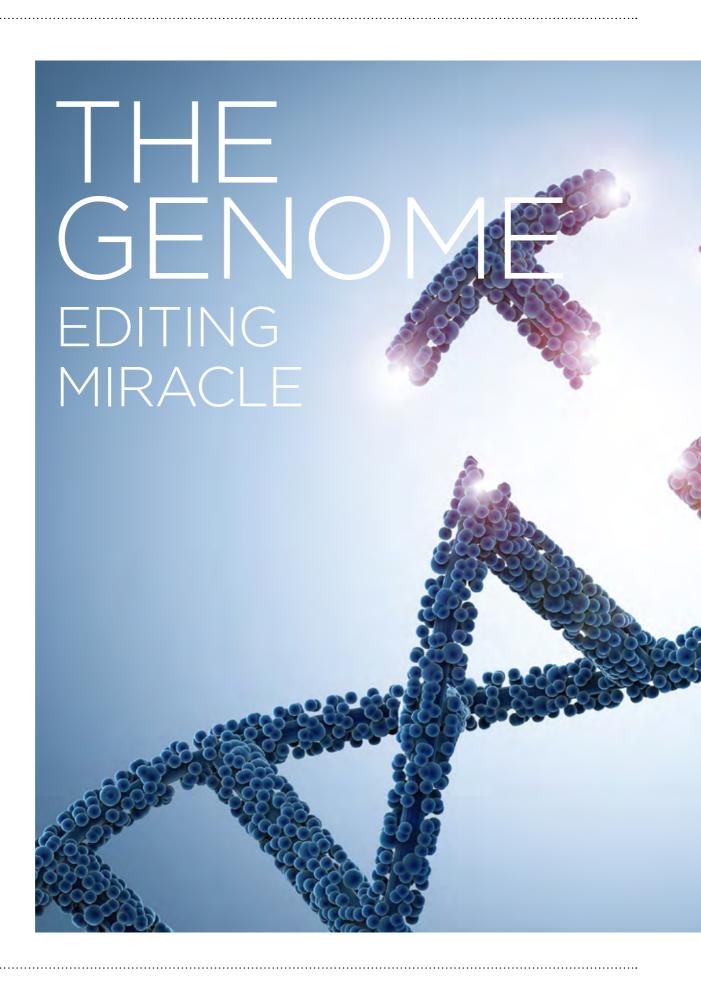


Lagoon Nebula, (Visible Light View)



NASA is researching how the blasts of radiation from massive stars influence their environments.

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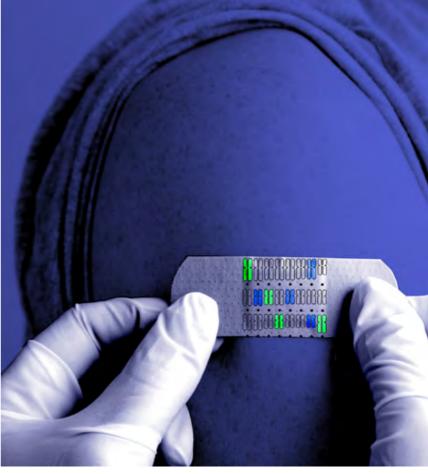
GENE EDITING TECHNOLOGIES MAY
PLAY A MUCH BIGGER ROLE IN OUR LIVES
IN THE FUTURE. WE HAVE COMPILED
RECENT DEVELOPMENTS ON THE
REVOLUTIONARY GENOME EDITING
METHOD CALLED CRISPR, WHICH HAS
THE POTENTIAL TO BE USED TO TREAT
MANY DISEASES.

Genome editing is one of the most discussed topics in the world of science in recent years. Genome editing, which refers to the artificial alteration and regulation of genetic material, allows scientists and researchers to manipulate genes directly. During the genome editing process, DNA sequences in specific regions of genes can be altered, making it possible to add desired features to genes or remove unwanted existing features.

Gene editing technology can be used in many different fields. In the agricultural sector, gene editing technology can be used to maximize the yield of produce, cultivate diseaseresistant plants, boost environmental sustainability, or improve the nutrient content in food production. A highly innovative and exciting technology, gene editing naturally arouses excitement in the medical world. Genome editing using techniques such as CRISPR-Cas9 is now seen as a potential tool to treat hereditary diseases or to reduce people's susceptibility to various diseases. Scientists state that gene







CRISPR was initially used simply to make cuts in DNA. Today, it can be tested as a way to change the existing genetic code, or even to insert completely new pieces of DNA or possibly entire genes into someone's genome.

editing techniques can play a key role in the emergence of new treatment methods. In a nutshell, gene editing involves targeting a specific gene and making a permanent change by stopping the production of certain proteins that can cause disease. Let's take a look at some of the exciting developments in the medical world related to CRISPR, a genome editing technique that is seen as one of the most exciting discoveries in human history.

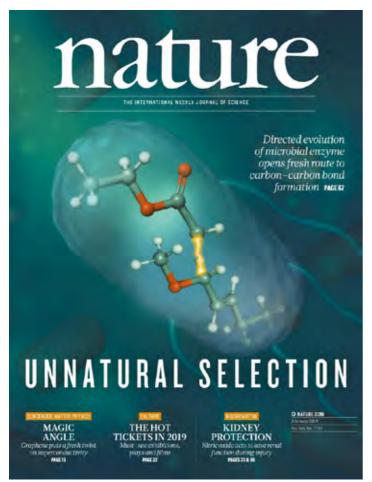
#### CHOLESTEROL-LOWERING **TREATMENT**

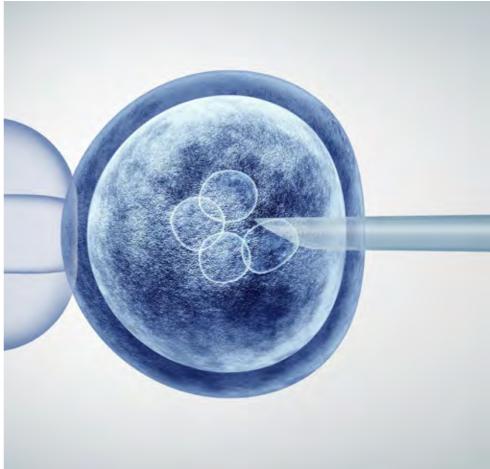
Last year, a New Zealand woman with heart disease was permanently cured of her cholesterol problem with gene editing treatment, causing excitement in the medical world. This experimental and successful treatment was carried out by Boston-based Verve Therapeutics, which conducts various studies to use gene editing in the treatment of cardiovascular diseases. The scientists conducting this experimental treatment state that this method can help almost everyone.

So, why is this development important? As you may know, genome editing technology was discovered in laboratories before being tested for the treatment of rare genetic diseases. The cholesterollowering treatment from Verve Therapeutics is important because it could touch the lives of many more people around the world. The experimental treatment process works like this: In the targeted method called CRISPR 2.0, scientists reach their targets by modifying a single DNA base instead of making cuts in specific genes. This makes it much less likely to accidentally cut an important gene. In addition, potential errors that can occur when repairing DNA are also avoided. It is worth noting that this new

form of CRISPR is still in the experimental phase, but the success of the cholesterollowering treatment shows us that this method is promising. We should also briefly mention the other gene editingoriented studies that Verve Therapeutics is conducting. The Verve Therapeutics team emphasizes that the presence of certain gene variants significantly reduces the risk







Boosting its reputability through publication in the prestigious Nature journal in 2019, the Prime Editing method may become more prominent in the field of gene editing therapies in the future.

of cardiovascular diseases in some people. The main goal of the team's work is to minimize people's risk of heart disease with a single gene editing treatment. If these efforts are successful, it could change the lives of many people around the world who are struggling with heart disease. It could even allow the scope of geneediting therapies to expand significantly, potentially making them available to many more people and for a much wider range of diseases.

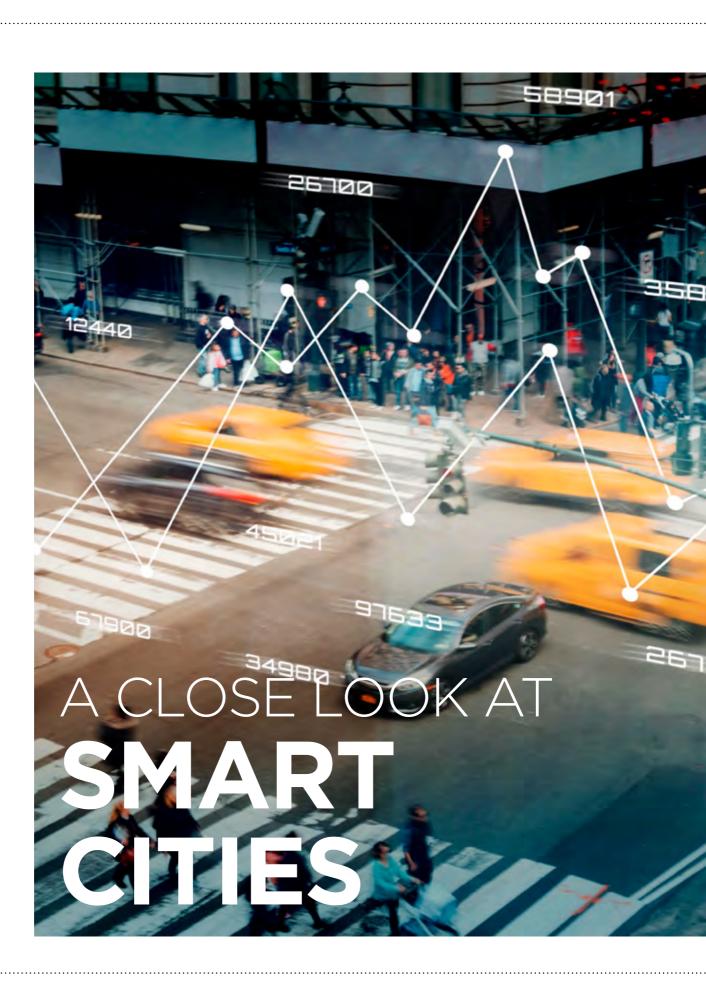
Considering all this, it is worth keeping a close eye on the new approaches to CRISPR and the work being carried out in this field by innovative organizations such as Verve Therapeutics.

# ANOTHER TEAM WITH EXCITING PROJECTS

Working under the scope of the Broad Institute of MIT and Harvard, Prime Medicine is also conducting various studies on the use of gene editing for therapeutic purposes. The team's goal is to eliminate the limitations of other existing gene editing methods with a method they call Prime Editing. This next-generation gene editing method focuses on the genetic causes of diseases and aims to provide patients with

potential long-term treatments. In the Prime Editing method, firstly, the exact location of the faulty DNA segment in the genome is determined. This faulty segment is then replaced with a different DNA segment. Boosting its reputability through publication in the prestigious Nature journal in 2019, the Prime Editing method may become more prominent in the field of gene editing therapies in the future. The Prime Medicine team believes that Prime Editing can be effective on 90% of disease-causing mutations. Introduced as a versatile. precise, and efficient method, Prime Editing has already

made waves in the medical world as it is designed to work broadly across many types of gene mutations. We should also note that Prime Medicine has recently joined forces with another bio-tech company, Cimeio Therapeutics, to begin new research. The two companies will investigate how to treat acute myeloid leukemia and myelodysplastic syndrome with Prime Editing. The work of Prime Medicine and other revolutionary biotechnology companies is closely followed not only by the medical community but also by the whole world.

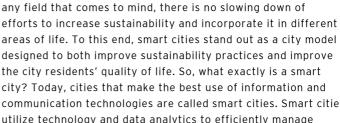














areas of life. To this end, smart cities stand out as a city model designed to both improve sustainability practices and improve the city residents' quality of life. So, what exactly is a smart city? Today, cities that make the best use of information and communication technologies are called smart cities. Smart cities utilize technology and data analytics to efficiently manage infrastructure, services, and resources. In other words, advanced technologies are integrated into different areas of smart cities to provide a more efficient and sustainable life for city dwellers. For example, a common practice in smart cities is to optimize infrastructure systems such as energy, water, transportation, and waste management to boost energy efficiency. Switching to renewable energy sources, equipping parking lots and public transportation systems with technological innovations, and producing various technological solutions for the protection of natural resources are also among the projects of smart cities. Let's take a closer look at some of the smart cities around the world that adopt such technological practices.

Nowadays, as sustainability continues to pop up in just about



#### **NEW YORK**

A pioneer in many areas, New York also stands out when it comes to smart cities. Setting an example for many other metropolises with its sustainability initiatives, New York also deserves appreciation for the law it enacted to reduce carbon emissions. It is known that buildings are responsible for about two-thirds of greenhouse gas emissions in New York. The law in question imposes a carbon emission limit on buildings that occupy more than a certain area. Thus, large buildings will have to adopt clean energy systems to avoid fines. Expected to take full effect in 2024, the law is part of a plan to make New York carbon neutral by 2050. The main goal is to reduce the carbon emissions produced by large buildings in the city by 40% by 2030, and by 80% by 2050. In addition, as part of the smart city pilot program that started in 2020, hundreds of smart sensors and technological devices have been installed in many parts of the city to manage public services more efficiently. These devices help regulate traffic flow, detect clean water leaks, and monitor air quality.



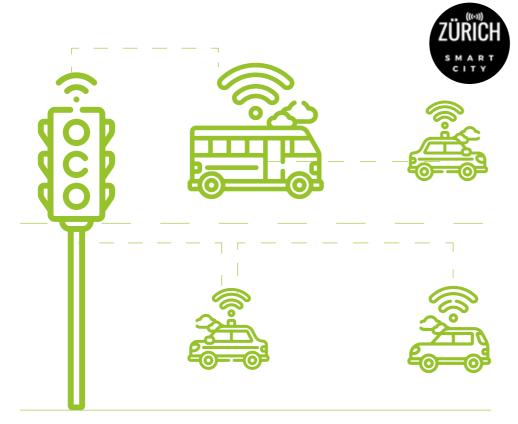






#### **SINGAPORE**

Singapore is taking firm steps toward becoming Asia's leader in smart and sustainable building solutions. With the 2006 Green Building Masterplan, Singapore aims to make 80% of its buildings environmentally friendly by 2030. This is one of the most ambitious targets for green buildings in the world. By the end of 2020, 43% of Singapore's buildings were already environmentally friendly. In 2014, Singapore launched its Smart Nation initiative and introduced many smart technologies to the public. For example, contactless payment technology was popularized so that more than 7 million passengers in the city can use public transportation more comfortably. To make life easier for the aging population, emphasis was placed on digitizing the healthcare system. Video examinations were widely implemented. The use of wearable technological devices in patient follow-up is also encouraged. Another Singaporebased project that generated plenty of buzz around the world was the initiation of efforts to turn Tengah, a former military zone, into a smart and environmentally friendly area. Announced in 2021, the most interesting aspect of the project is that Tengah is called a forest city. Planned as a lush green residential area, Tengah will have a centralized cooling system and over 40,000 residences.

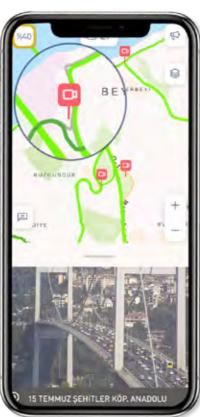


#### **ZURICH**

One of Zurich's most remarkable smart city projects focuses on the working principle of streetlights. In the first phase of the project, streetlights with sensors that detect traffic density were installed in certain locations. The lamps, which turn on when traffic is heavy and off when traffic is light, helped the city achieve energy savings of 70%. Following the project's success, streetlights that collect environmental data and measure the flow of traffic were installed all over the city. Smart technologies that make buildings' electricity, heating, and cooling systems more efficient are also widely used in Zurich. Launched in 2018, the Smart City Zurich project aims to make the public transportation system more efficient, improve the city's digital infrastructure, and encourage the participation of both businesses and residents in smart city activities.







#### **ISTANBUL**



When we take a look at Türkiye, we see that istanbul stands out with its smart city applications. Established in 2016, the İstanbul Metropolitan Municipality

Smart City Directorate united all smart city stakeholders and initiatives in line with a single vision with the İstanbul Smart City Roadmap. The IBB CepTrafik mobile application, which allows istanbulites to easily access traffic information, is one of the leading smart city technologies in İstanbul.

The controlled combustion of landfill gas generated at the Odayeri and Kömürcüoda Landfills to generate energy is another successful smart city practice. Thanks to the electricity generated entirely from landfill gas, the electricity needs of approximately 1.2 million people can be met. EDS systems that monitor traffic violations are also among the smart city applications in İstanbul.



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ORGANIZED BY THE ISTANBUL FOUNDATION FOR CULTURE AND ARTS (IKSV) FOR THE 27<sup>TH</sup> TIME, THIS YEAR'S ISTANBUL THEATRE FESTIVAL HAS AN EXTENSIVE PROGRAM WORTH EXPLORING.



The 27<sup>th</sup> Istanbul Theatre Festival is getting ready to welcome theater lovers from October 25 to November 25. Having switched to a curated structure last year, the İstanbul Theatre Festival will be organized this year under the curatorship of director Işıl Kasapoğlu, one of the most successful names in Turkish theater over the past 40 years who has written and directed more than 100 plays as well as founding the independent theater Semaver Kumpanya. In the second and final year of Işil Kasapoğlu's curatorship, the festival once again promises audiences a seminal program.

The 27<sup>th</sup> istanbul Theatre Festival is preparing to host a total of 20 theater, performance, and dance shows from Türkiye and abroad. Theater lovers can enjoy a program of 11 productions from Türkiye and 9 productions from Germany, the UK, Denmark, France, Georgia, Ireland, Israel, and Greece. Festivalgoers will get to discover the works of directors and choreographers who have left their mark on today's theater. The istanbul Theatre Festival offers audiences a tremendous opportunity

to familiarize themselves with the figures who are shaping the future of performing arts globally. The festival also notably embraces a variety of performing arts disciplines. From documentary theater to classical performances, contemporary dance, masked theater, puppet theater, sitespecific works, dance theater, performative installations, and more, the festival presents a wide range of interesting performances. The local productions at the festival are also worth mentioning. While the festival program includes a young generation of writers and directors with original and new texts, it also gives us the chance to watch many experienced actors onstage, including Ercan Kesal, Nesrin Kazankaya, Bülent Emin Yarar, Çiçek Dilligil, Okan Bayülgen, Deniz Türkali, and Meral Çetinkaya. We should also note that this year's Istanbul Theatre Festival Honorary Award was given to theater actor and director Mehmet Birkiye. You can find detailed information about the festival, which also hosts public and free events, at tivatro.iksv.org/ en. Now, let's take a closer look at the noteworthy productions on the festival program.





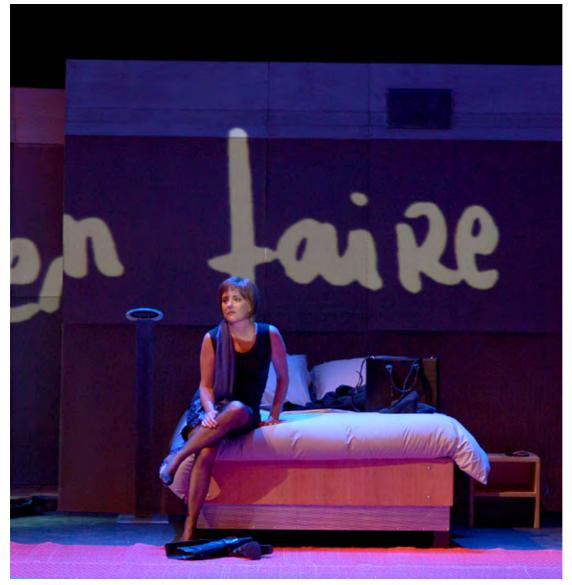


Pina Bausch

#### CAFÉ **MÜLLER**

The late German dancer and choreographer Pina Bausch, who passed away in 2009, was undoubtedly the most innovative name the dance world met in the 20th century. Pina Bausch's masterpiece Café Müller, which led to the acceptance of dance theater as a new genre, will be staged for the first time in Türkiye with the current cast of her company Tanztheater Wuppertal. Telling a story of desire and loneliness, this dance theatre is one of those rare works that still manage to remain as captivating as it was when first staged. Reflecting Bausch's mastery of reading the human soul, this performance will mark the opening of the festival on October 25. This legendary work by Pina Bausch-a choreographer who has inspired many artists from Pedro Almodóvar to Robert Wilson-is definitely one of the most exciting productions on the festival program.







Wajdi Mouawad

#### **SISTERS**

Lebanese-Canadian author and actor Wajdi Mouawad's play has been translated into 20 languages and is also frequently staged in Türkiye. Following his first appearance before festival audiences with the first play of his "Domestique" series in 2017, Mouawad is now a guest of the İstanbul Theatre Festival with the second play in the series, Sisters. In this one-woman play, veteran actor Annick Bergeron brings many characters to life, while director Mouawad constructs an intriguing universe onstage with a wide variety of materials, images, sounds, and objects. The play focuses on the sisterhood of two women, one from Canada and the other from civil war-torn Lebanon.



**Hofesh Shechter** 

#### **DOUBLE MURDER**

Among the most esteemed choreographers in today's dance scene, Hofesh Shechter's Double Murder is guaranteed to evoke emotions in the audience with the unparalleled dancers in his company and the music he personally composed. The first part of the program sarcastically tackles our increasing insensitivity to violence and questions how far we can go in the name of entertainment. The second part creates a compassionate space where we can take refuge. The star choreographer's work is one of the most anticipated productions of the festival.







#### **MASTERCLASS**

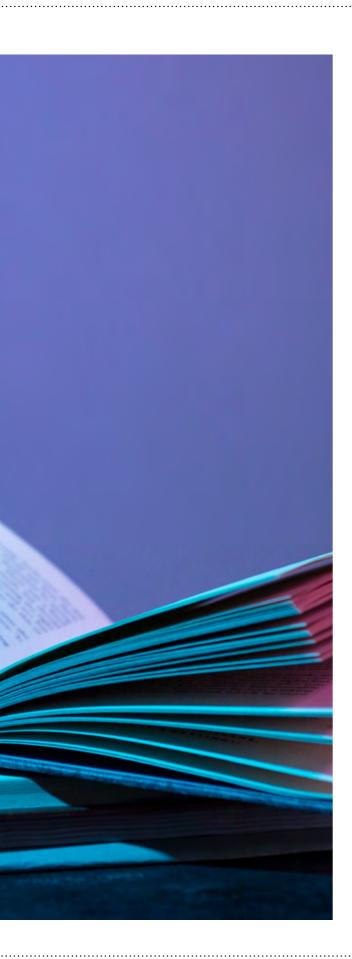
Masterclass is a work that questions the gender and power structures of today's world from a female perspective. Beginning as a parody with familiar elements, Masterclass gradually breaks down stereotypes and uses theater as a metaphor to present a striking and highly entertaining analysis of patriarchy, privilege, and creativity. Blending text, music, and movement theater, the piece was written by Feidlim Cannon, Gary Keegan, and Adrienne Truscott. New Yorkbased artist Truscott's fearless and humorous feminist rhetoric is deeply moving.



THE FESTIVAL HOSTS GUESTS FROM THE EARTHQUAKE REGION

Produced with the support of the Gülriz Sururi-Engin Cezzar Theater Incentive, HermiTrio tells the story of three brothers who are unable to sleep, exploring their struggle with each other, the sea, and sleep. In the musical written and directed by Semih Ali Aksoy, the siblings discover music, harmony, and the beauty of creating together. Recommended for children ages 4 and up, this musical is a poetic performance about the power of joining hands in the face of nature's surprises. Joining the festival from Adana, Right Humans | Velda, Kerim, İpek invites us to think about the concept of belonging. The third installment of the Right Humans projectwhich consists of trilogies written by different authors based on the Universal Declaration of Human Rights-is based on the 2nd, 6th, and 13th articles of the Declaration. Written by Fatma Yüksel Sendan, Hakan Akgül, and Melis Balaban, the play is directed by Canan Günaştı.

# THE DISTANCE LEARNING REVOLUTION Following | For you



THE INTERNET HAS RADICALLY CHANGED OUR METHODS OF EDUCATION AND LEARNING.
HERE, WE TAKE A LOOK AT ONLINE PROGRAMS FROM PRESTIGIOUS UNIVERSITIES AS WELL AS OTHER EDUCATIONAL PLATFORMS AND APPLICATIONS AVAILABLE ON THE INTERNET.

Every day brings new and exciting technological developments. Particularly during the global pandemic, many people had the opportunity to discover aspects of the internet and technology that they had never experienced before. Although the world has left the pandemic behind, some of these technological possibilities continue to play an important role in many of our lives. One of these is, of course, distance learning via the internet. Now, regardless of location, everyone can receive education on every conceivable subject by taking advantage of the opportunities provided by the internet. Here, we take a closer look at the various advantages offered by the distance learning trend and the prestigious training programs you can attend online.

## THE ADVANTAGES OF DISTANCE LEARNING

All you need for distance learning is an internet connection and a computer, smartphone, or tablet. Once you have these, you can work on improving yourself by attending online courses whenever and wherever you want. Therefore,

it could be said that the most important advantage of distance learning is that it eliminates the constraints of the classroom.

One of the challenging aspects of traditional education methods is, of course, that classes take place at predetermined time intervals. Distance learning methods eliminate this obstacle. When you start an online course, you can attend classes whenever you want. Whether it's on the way to and from work, when you're unable to sleep at night, or during your lunch break, the choice is yours.

Another advantage of distance learning is that it increases our access to a variety of resources. Without being tied to limited library resources, we can access a rich world of content on the internet at any time. This also allows us to research a subject we are interested in, learning about it in depth. In addition, distance learning platforms utilize learning tools such as interactive learning materials, video lectures, and interactive tests. These enable students to actively participate in the lessons, making the learning experience more interactive.

# ONLINE EDUCATION PROGRAMS

BY UNIVERSITIES AND OTHER INSTITUTIONS





#### HARVARD UNIVERSITY

One university that is rapidly adapting to the digital transformation in the world of education is Harvard, which consistently ranks among the world's most prestigious universities. The university's Harvard Online platform offers students a comprehensive catalog of research-based courses. Harvard aims to shape the future of education in the world with courses developed specifically for its online platform. There are many interesting options among the online courses, which have drawn more than 15 million students to date. Women Making History, Modern Masterpieces of World Literature, Introduction to Data Science with Python, and Human Anatomy: Musculoskeletal Cases are just a few of the many intriguing courses that await you. The courses usually last a few weeks, and you can follow them at your own pace.



#### MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

Another prestigious university providing online

courses is MIT, which offers a wide range of courses through a platform called MITx. In addition, all these courses utilize materials developed for use in the faculties of the university. Reflecting the quality of MIT's education, the course catalog includes interesting courses such as Genetics: The Fundamentals, Entrepreneurship 101: Who is your customer? Global Rhythms, and World Music: Global Rhythms.



#### STANFORD UNIVERSITY

Stanford's free online courses offer you a flexible way to learn new skills, advance your career, and increase your general knowledge. Grouped under key topics such as health and medicine, engineering, and the arts, there's sure to be a course for you. Check out courses such as The Threat of Nuclear Terrorism, Unconscious Bias in Medicine, and Language, Evidence and Logic.

# ûdemy

#### UDEMY

Udemy is one of the first platforms that come to mind when we think of educational technology. One of the most popular destinations for online learning, Udemy currently has more than 60 million students and over 70 million educators. You can find both business-oriented and technical courses at Udemy, which is also popular among

companies that want to train their employees. With Udemy, you can get training in many subjects from business to design and improve your competencies. It is also possible to share your experience with others by teaching courses on the platform.



#### **MASTERCLASS**

MasterClass is a streaming platform offering hundreds of video courses. Taught by hundreds of experts in their respective fields, the courses focus on subjects such as photography, cooking, writing, acting, music, and sports. Who wouldn't want to learn the tricks of launching a startup from Reddit co-founder Alexis Ohania, singing from Christina Aguilera, or chess from Garry Kasparoy?

# **♡** Khan Academy

#### KHAN ACADEMY

The non-profit Khan Academy is one of the world's most popular online educational institutions. Here, students of all ages can take courses in a wide range of subjects, especially math, science, and humanities. Whether you want to learn financial literacy, improve your knowledge of macroeconomics, learn the ins and outs of online data security, or improve yourself in one of many other available subjects, check out Khan Academy.



# A C M C M



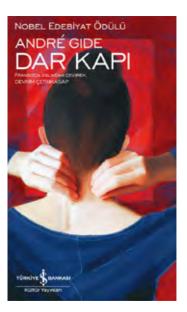
# festival

212 Photography İstanbul

#### **OCTOBER 5-15**

VARIOUS VENUES, İSTANBUL

Now in its sixth year, 212 Photography Istanbul welcomes photography enthusiasts to more than 20 venues throughout Istanbul. One of the most eagerly awaited events each October, the festival's program includes exhibitions as well as workshops, talks, film screenings, concerts, and performances. Within the scope of the festival, impressive photography exhibitions await art lovers at Museum Gazhane, MSGSU Tophane-i Âmire Culture and Art Center, and many other venues.



# book

Strait is the Gate

#### **ANDRÉ GIDE**

TÜRKİYE İŞ BANKASI CULTURAL PUBLICATIONS

In the 1909 novel Strait is the Gate, André Gide takes us to the fairytaleesque and idyllic atmosphere of Normandy, to a love tension that unfolds with all its intensity in a narrow family circle. It is a metaphysical tension between Jérome's passionate love for Alissa and her love for God. In contrast to the egotism of the author's 1902 work L'Immoraliste (The Immoralist), the characters in Strait is the Gate are ready to surrender themselves and suffer for love. Underneath all the drama, however, Gide weaves a sharp satire of these metaphysical commitments. The fear of loss, the disconnect between dream and reality, the dialog between the heart and the mind are the haunts of Strait is the Gate, which is considered a masterpiece on love.

# exhibition

#### Lausanne 1923

#### **UNTIL OCTOBER 30**

**CASA BOTTER** 

The exhibition Lausanne 1923 focuses on the Conference of Lausanne, one of the most important stages in the founding of The Republic of Türkiye. Organized on the occasion of the centenary of the historic signing, the exhibition tells the story of the Lausanne Peace Treaty, which has been the subject of multifaceted debates over the years, accompanied by period photographs and documents.





# theater

### Oktoberfest

#### **OCTOBER 14-15**

VOLKSWAGEN ARENA, İSTANBUL

Munich's famous Oktoberfest has long surpassed Germany's borders and become a global phenomenon. Each year, Oktoberfest-themed events take place all over the world. One of these is happening this month at the Volkswagen Arena. In addition to food and beverage options, the festival will also host live music. On the first day, Göksel and Hey! Douglas take the stage, followed by Shantel and Goran Bregović on the second day.

WE CONTINUE OUR WORK WITHIN THE FRAMEWORK OF OUR VALUES OF

# EQUALITY, DIVERSITY AND INCLUSIVITY

WHICH WE POSITION AT THE CORE OF SISECAM'S CORPORATE CULTURE.

**5,602** female employees by the end of **2022** 

> Targeted female employee rate by

2030 **25%** 

(23.2% as of the end of 2022)

The number of participants who have been provided with job opportunities so far

with the "Glass **Applications** Certificate Program"

> we launched to increase women's competence in the

field of glass 128



### Women **Expression Program**

Implementation Rate 70%

The number of women leaders who graduated from the AMP (Advanced Management Program) and PMD (Program for Management Development) programs as a result of our collaboration with IESE Business School under the "Şişecam Women Expression" program is 3.

#### We are expanding the scope of employment of our female employees

by initiating assignments that support gender equality.

Percentage of female employees in management positions as of the end of

2022 27%

Percentage of female employees in senior management positions 20%

Percentage of female employees on our Executive Board

**50%** 



Şişecam celebrates the 100th anniversary of the Republic of Türkiye with the Gururla Collection. This special collection is now available in Paşabahçe Mağazaları.





