THE PACIFIC ALLIANCE: A CORNERSTONE IN THE MODERN ECONOMIC ERA

INTERVIEWS WITH
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VEN A COMER
Mónica Patiño
A Mexico City Legend Unto Herself
This very year, on June 2018, the Government of Mexico declared the pharmaceutical and medical devices industry a “Strategic Industry to Mexico’s social and economic development and the health of the nation”.

In the official ceremony, Ildefonso Guajardo, our Minister of Economy, and Health Minister, José Narro, shared the podium and underlined the relevance of such declaration. By acknowledging a Strategic Industry, Minister Guajardo said, “not only we recognize the importance of the pharmaceutical and medical devices sector as a source of investment, but also implies a commitment by the Mexican government to enact public policies that foster its development.”

According to KPMG, consumption of pharmaceuticals in Mexico will have reached over 20 billion USD by 2020, which translates into average annual growth of 5.5% between 2015 and 2020. In Mexico, pharmaceutical companies create some 85,000 direct jobs and just over 310,000 indirect ones, while the sector accounts for over 4% of manufacturing GDP.

Trustworthy Industry sources also indicate that Mexico produces 75% of the medications it consumes and this percentage increases with each passing year, bringing us ever closer to self-sufficiency. Add a forward-looking regulatory system and solid institutions and you have an ecosystem that is propitious to a larger and faster development of the sector.

Given the size of Mexico’s pharmaceutical and medical devices industry, the number of companies that comprise it and the number of people these employ, the volume and value of its output, the investments it attracts and its impact on the wellbeing of the population at large, there can be no denying that this sector is a cornerstone of the country’s development.

Hence, this issue of Negocios ProMéxico takes a closer approach at what has made the health sector so strategic. Aside from an analysis of the pharmaceutical and medical devices industry, we turn our gaze to clinical research, an area in which Mexico is becoming a key international player and is starting to catch the eye of the larger global pharmaceutical companies.

Medical tourism is another area in which Mexico is progressing in leaps and bounds. Today, more and more people are visiting Mexico from abroad to seize its highly specialized medical services, while enjoying the attractions and infrastructure of one of the world’s top tourist destinations. While reading on, you will learn that the public and private sectors have joined forces to promote medical tourism in Mexico, opening up endless opportunities for the development of new business in different parts of the country.

Finally, we have included a special section on Chinese-Mexican relations to celebrate our participation in the 2018 edition of China International Import Expo as a Guest Country, starting this November.

China and Mexico not only have longstanding ties of friendship, but also are countries that strongly advocate economic liberalization and multilateralism. We sincerely believe our participation in China International Import Expo is yet another opportunity to strengthen relations between our two nations, foster mutual understanding and cooperation and explore new horizons, so we can continue walking together down the path toward a better future for our respective countries.

As always, my outmost gratitude to all those who were generous enough to share their vision and valuable opinions with Negocios ProMéxico and who have made this such an informative issue. My acknowledgement also to those of you who read our magazine on a regular basis. I hope you find this issue of interest and that it serves to communicate ideas that materialize into concrete, successful business opportunities.

I know you all will enjoy this issue!
—How important is the pharmaceutical and medical devices industry to Mexico?
In light of its positive impact on economic development and the quality of life of patients, the Mexican government decided to declare the pharmaceutical and medical devices industry a priority, strategic sector this year. This does not, however, mean that we are talking about a new sector at the development stage. On the contrary, Mexico’s pharmaceutical industry already makes a significant contribution to the economy.

—How did we get to this point?
Mexico’s pharmaceutical regulations have evolved steadily over the last 20 years. In the 1990s, we began laying the foundations for a solid pharmaceutical industry. The new regulations promoted the manufacture of drugs in the country. Some of Mexico’s pharmaceutical laboratories have been around for more than 90 years, but the regulatory reforms of the 1990s gave these companies a real shot at becoming major players on the domestic market, capable of meeting a large percentage of demand.

Since then, we have been structuring the market as it is today. One prerequisite to building a robust pharmaceutical market is the capacity to test drugs. In 1998, Mexico created a network of labs capable of conducting bioequivalence tests, which, up until then, had been done in other countries. Prior to this, the analytical capacity of the Mexican industry was extremely limited, but today it is very well developed. Just to put things into perspective, there are currently some 60 labs of this kind operating in Mexico, compared to Colombia which only has five—three in the country and two overseas in partnership with other countries.

This was followed up with the creation of the Federal Commission for the Protection against Sanitary Risks (Cofepris) in 2001, an initiative that put Mexico in the same league as countries that had had their own regulatory bodies for decades. Before 2001, Mexico didn’t have a regulatory authority, even though the US Food and Drug Administration (FDA) had been operating for over a century, Health Canada already existed and the European Union already had its health regulatory agency. Even Cuba had a health authority. The creation of Cofepris was a major step forward in regulating all sectors that have an impact on human health and health risks, one of these being the pharmaceutical and medical devices sector.

Shortly afterwards, in 2003, the creation of the Federal Sanitary System marked yet another milestone. Under this system, each state set up its own health authority to concentrate formerly dispersed activities related to health and health risks. In some cases, these were state commissions based on the Cofepris model. Very few countries have a health system of this kind. Mexico’s Federal Health System has approximately 12,000 people working to protect the population against health risks, whereas in countries like China, whose population is ten times larger than Mexico’s, only 56,000 people are engaged in this task. 
The pharmaceutical industry also benefited from the health reform of 2005, which improved standards for the registration of drugs and medical devices.

All listed products were revised and their permits gradually renewed under more stringent standards that guaranteed all drugs available on the Mexican market had passed quality tests, including their active ingredients; stability tests, which are a scientific measurement of how external factors affect the efficiency of a substance; and bioequivalence tests, to guarantee the comparability of innovative and generic drugs.

In 2011, in the wake of this regulatory “evolution”, the Mexican government implemented measures to strengthen the pharmaceutical industry and outlined health priorities in keeping with international directives, like the CD50. R9 resolution handed down in 2010 by the Pan-American Health Organization (PAHO), which recommended strengthening health authorities so as to facilitate access to medicines and created the first-ever reference framework for evaluating the robustness of health authorities.

Which of these priorities does Cofepris focus on?

Mexico’s health policy outlines three priorities: effective access to medicines, quality services and prevention. Cofepris is focused on the first of these, i.e. guaranteeing the population access to safe, effective, quality health products and inputs at affordable prices. In keeping with the country’s pharmaceutical policy, Cofepris has four lines of action: consolidate a robust regulatory authority; guarantee a reliable drug registration and listing system; eliminate obstacles to the sale of products of proven safety, quality and efficacy; and bring the activities of the regulatory authority into line with those of the regulator with the best international practices.

In Mexico’s case, building a solid regulatory authority has been an essential part of the process. In countries that lack such an authority, standards are low, there is uncertainty, quality is poor and markets are highly differentiated between those with good products and bad, and those that compete in terms of price as opposed to quality. Lack of standards that apply to all players generates market distortions.

Cofepris is a decentralized agency of the Ministry of Health that operates independently from a technical and operating standpoint. Its head is appointed directly by the president. In 2013, in light of the impact its work has on the population’s health, Cofepris was declared a National Security Agency.

The second line of action of the country’s pharmaceutical policy is to guarantee a reliable drug registration and listing system, i.e. a transparent, efficient system with predictable processes; a system that is equipped to accompany the industry and that has appropriate approval times for the registration of health inputs, so that technical analyses can be conducted and the population guaranteed access to new drugs.

As regards the elimination of obstacles to the sale of products that have been proven safe, effective and of the required standard, at one point in Mexico, the rule was that to approve the sale of a drug, the lab making it had to have a manufacturing facility in the country. This was an obstacle to the sale of drugs from other countries, based on

“The creation of Cofepris was a major step forward in regulating all sectors that have an impact on human health.”

JULIO SÁNCHEZ Y TÉPOZ, HEAD OF THE FEDERAL COMMISSION FOR THE PROTECTION AGAINST SANITARY RISKS
“In Mexico’s case, building a solid regulatory authority has been an essential part of the process. In countries that lack such an authority, standards are low, there is uncertainty, quality is poor and markets are highly differentiated (...) Lack of standards that apply to all players generates market distortions.”

a policy that had not produced results—first the pharmaceutical company in question had to be persuaded to invest in a plant in Mexico, so it could then be granted permission to sell its drugs.

Another obstacle was a provision of Mexican law that stated molecular innovations could only be registered if the applicant could prove products incorporating them were already being sold in another country.

There were also regulations for additives and medical devices that hadn’t been updated in a long time. In other countries, some of these no longer needed to be registered, while in Mexico the registration requirement continued to apply.

What I am trying to illustrate with these examples is that products from other countries had a hard time entering the country, even when their safety, quality and efficacy had already been proven. In other words, the regulations were restricting the population’s access to medications.

Finally, bringing Cofepris’ activities into line with those of the regulator with the best international practices implied defining an international agenda to ensure Mexico followed international standards and guidelines. It also implied adopting know-how that was well established in other countries, but not in Mexico, due, in part, to how distanced we were from the work of leading regulatory authorities in the drawing up of guidelines. Our alignment with international standards and regulations is not the result of political, cultural or aesthetic criteria, but simply of acknowledging the existence of a global market. The fact that Mexico complies with best international standards fosters trade and guarantees more effective access to medications.

—How are these four lines of action reflected in the work of Cofepris?

Cofepris has come up with specific strategies in all four areas: generic drugs, innovative and biotech drugs, deregulation and the promotion of medical devices, and international certifications.

As regards generic drugs, Cofepris analyzed the molecules that are most important to the health of the Mexican population. We identified 60 molecules used to treat just over 90% of the most common illnesses in the country and, in strict compliance with industrial property laws, began to release generic drugs. Today there are 590 generic drugs manufactured from 43 active substances available on the Mexican market. These cover 71% of the causes of death of Mexicans and have translated into savings of up to 70% on average.

This has revolutionized the industry. In terms of value, generic drugs accounted for just over 30% of the pharmaceutical market in 2010, compared to 54% today. And in terms of volume, their market share has risen from 52% to 84% in the same period. This has had a major impact on the population and the country at large, not just health-wise, but economically. In the public sector alone, the introduction of generic drugs has enabled this government administration to make savings of over 26 billion pesos.

In the area of innovative drugs, we implemented a strategy to attract the best health solutions available worldwide to Mexico. This involved modifying our regulatory process to allow for the registration of molecular innovations made in other countries. Today, Cofepris validates the technical information pertaining to molecular innovations registered in other countries, thereby facilitating access to these drugs.

We have also set up a specialized group at Cofepris to evaluate molecules under development, meaning Mexico has a group of experts qualified to accompany research into new molecules from its early stages, with the guarantee that, once the molecule has been proven viable, Cofepris will approve its registration within 60 days. This has fostered molecular innovation in Mexico and today we have eight cases of molecules engineered in Mexico and that were first marketed here.

Our country has sound, clear processes for the introduction of innovative and biosimilar drugs. In 2014, we conducted an exhaustive study to identify the best biotechnology standard. And in December of that same year, we met with the industry and experts to design a specificbiotechnology standard, which came into force in 2015. Today there are over 100 biotech drugs available in Mexico, 70 of which are innovative and just over 30 biosimilar.

—Tell us about the medical devices sector.

Mexico is the third-largest producer and exporter of medical devices in Latin America and the eighth worldwide. There are just over 150 companies producing medical devices in Mexico, including Medtronic, the leading global producer.

The medical devices sector is a dynamic, high-growth, technologically intensive one. In this sector in particular, we have made efforts to deregulate the market and eliminate the requirement to register inputs that do not pose a health risk, promote the industry by introducing new rules, accompany investment projects and create mechanisms for the transfer of know-how.
—And internationally?
We have made ongoing efforts to obtain international certifications and strengthen Cofepris’ presence and participation in the international agenda.

In 2012, PAHO certified us as a benchmark authority—this certification was renewed in 2017—, and in 2014, we were certified by the World Health Organization (WHO) as a functional immunization agency.

Cofepris belongs to the Pharmaceutical Inspection Co-operation Scheme (PICS), whose 58 member countries acknowledge each other’s good manufacturing practices. This saves Cofepris going to the trouble of inspecting plants in PICS member countries that have already been inspected by that country’s national authority.

Internationally, we participate in at least ten regulatory harmonization groups. One of these is the International Coalition of Medicines Regulatory Authorities (ICMRA), which Mexico will be vice-president of until 2019. This coalition brings together the world’s top 15 pharmaceutical powers, with Brazil and Mexico representing Latin America.

At PAHO, Cofepris will be coordinating all the region’s benchmark agencies (Argentina, Brazil, Canada, Colombia, Chile, Cuba, the United States and Mexico) until 2019. We also participate in other groups like the International Medical Device Regulators Forum (IMDRF), the International Conference of Drug Regulatory Authorities (ICDRA)—which represents the regulatory agencies of some 60 countries—, and WHO technical groups specialized in various fields.

In 2016, with the support of APEC, Cofepris created a center for regulatory excellence. Mexico was a pilot country on this project, which was designed to close the knowledge gap and make it easier for research conducted in other parts of the world to reach Mexico during its early phases. The center organizes forums and training sessions and published papers with a view to building bridges between all actors involved in the pharmaceutical and medical devices sector. In November 2018, it will be holding its Second International Week and we are expecting a turnout of some 500 people from all over the world.

—Cofepris has come to play a major role in promoting clinical research in Mexico. What steps have you taken?
We have been working closely with ProMéxico to showcase Mexico’s strengths as a research destination. It helps that we have a regulatory authority with clear processes that provide certainty and that is in a position to approve research protocols within an acceptable timeframe. We also have a network of hospitals and health centers that provide rapid access to a population of patients that could potentially participate in research studies, as well as health professionals trained in clinical research and labs interested in participating in research projects.

Cofepris has simplified procedures for the approval of clinical protocols and entered into similar agreements with national health institutions like the IMSS that exploit existing human capital and infrastructure for the conducting of clinical research.

The goal is to attract international research projects to Mexico in their early phases. We want to get Mexico participating in the creation of knowledge in the health sector, reason why our health authority has clear, predictable, efficient procedures, and mechanisms to accompany research projects from their initial stages.

There can be no denying Mexico’s pharmaceutical and medical devices industry is attractive to investors. We export to Latin America, the United States and Asia, and our medical devices industry has a trade surplus. For all these reasons and more, Mexico could be considered an industry hub.

As a regulatory authority, we are focused on efficiency, high technical standards and promoting a more competitive market, but Cofepris also welcomes dialogue with the pharmaceutical and medical devices industry. We have a global vision and our doors are open to companies of all sizes, because we are aware that we also play a part in regulating, not just the health sector, but the economy as a whole and that our work has the potential to contribute to the development of Mexico, which is our overriding concern.

“Today there are 590 generic drugs manufactured from 43 active substances available on the Mexican market. These cover 71% of the causes of death of Mexicans and have translated into savings of up to 70% on average.”
INTERVIEW WITH GUILLERMO FUNES RODRÍGUEZ
PRESIDENT OF THE NATIONAL CHAMBER OF THE PHARMACEUTICAL INDUSTRY

PHARMA, AN OMNIPOTENT INDUSTRY

President of the National Chamber of the Pharmaceutical Industry, (Canifarma), Guillermo Funes Rodríguez, gives us a snapshot of the industry, which was recently declared strategic to the country’s economic development.

—What is the current situation of Mexico’s pharmaceutical industry and where is it headed?

The Mexican government, via its ministries of Economy and Health, has declared pharmaceuticals a strategic and priority industry.

If we look at it strictly from a health perspective, the industry supplies drugs for palliative treatments and normal care for chronic degenerative and infectious diseases, but innovative new drugs are also making it possible to treat illnesses that were deemed incurable until not so long ago.

From an economic standpoint, it’s an industry that generates an enormous quantity of high-tech manufactured goods in compliance with strict health regulations. In 2017, the domestic industry registered sales of 270 billion pesos, which translates into 17% growth compared to 2016. Public-sector sales accounted for 27% of this figure, with private-sector sales making up 66% and exports 7%.

The pharmaceutical industry is a very specialized one that employs highly skilled professionals and channels 17% of its sales into R&D.

—Are there any specific lines of R&D?

We have been working along two main lines. One of these is a clinical studies program that the country is very well positioned to implement.

We have cleared up a series of issues and signed agreements for more clinical studies to be conducted in Mexico. Our goal is to attract investment of approximately 500 million USD in clinical studies. This is where ProMéxico comes in, because it distributes information widely in countries the world over, which creates an interesting complement to what Canifarma affiliates are working on in their countries of origin.

The second line consists of fostering closer ties with national health institutes and academic institutions—the National Autonomous University of Mexico (UNAM), the National Polytechnic Institute (IPN), the Autonomous University of Nuevo León and, to a lesser extent, the Tec de Monterrey—for the development of large-scale programs in collaboration with the industry.

There are three things we seek to do: firstly, communicate the industry’s needs to academic institutions so they can draw up research projects; secondly, take an inventory of all existing projects with technological potential so we can invest in them; and thirdly, tie research projects in with the industry’s tangible needs and available financing over the long-term.

Academic projects are partially government-financed, but we need to raise more private funding for research into the health problems this sector faces.

This is the second year we will be staging an Innovation Trade Show, which will be attended not just by research centers, but by industry reps and investors.
—You will be the first to place your bets on innovation.
We already have some very interesting projects by research institutes, which we will be presenting in November at the 2nd Innovation Trade Show. It’s a series of 12 projects whose products could potentially be licensed to pharmaceutical companies or companies founded to develop them, so that Mexico can begin to mirror the global trend, whereby researchers are the owners of tech-based companies.

—Which industry needs do these consortia meet?
Chronic degenerative illnesses are the country’s main priorities. The first block includes, in order of importance, diabetes, obesity and hypertension; the second, oncological diseases; and the third, diseases of the central nervous system—like anxiety and depression—that are on the rise. Finally, we have pain and traumatology related ailments.

We also work closely with the National Cancerology Institute, not just on research but on clinical studies, with the National Institute of Medical Sciences and Nutrition on diabetes, obesity and hypertension, and with the Biotechnology Institute and the National Institute of Genomic Medicine.

—How have these efforts positioned us internationally?
The pharmaceutical industry in Mexico is comprised of two types of companies: Mexican companies financed with domestic capital and international ones financed with foreign capital.

Companies financed with foreign capital operating in Mexico are subsidiaries of large multinationals, which means we have the benefit of the R&D conducted in their countries of origin and can bring the latest breakthroughs to Mexico. The most recent and highly publicized one was a cure for hepatitis C.

The Mexican companies that have rebounded in the last 15 to 20 years have huge investments in Mexico, world-class plants and development centers.

Multinationals have a presence in Mexico and we have a group of Mexican companies that are not only developing generic drugs, but innovative ones. We export to the United States, Europe, Latin America, Africa and even Asia. I’d rank Mexico’s pharmaceutical industry among the top 11 in the world.

—Given these strengths, which areas of opportunity could be exploited to shore up the industry?
The main thing we need to do is support companies financed with Mexican capital because everything associated with innovative drugs is extremely expensive, from research to plants. We need the support of government agencies, especially in the area of R&D, to promote closer ties with universities based on criteria that encourage innovation and help solve problems that affect the population.

Then there is the regulatory aspect. The Ministry of Health, especially the Federal Commission for the Protection Against Sanitary Risks (Cofepris), has been very supportive in strengthening Mexico’s regulatory framework. It is important we have clearer rules and increasingly higher standards, because to the extent that our regulatory agency is recognized and falls into step with the standards of, for example, the US Food and Drug Administration (FDA) and the European Medicines Agency (EMA), the better our chances of exporting and establishing exchange programs with institutions and companies in other parts of the world.

Finally, there is the human factor. We need skilled technicians, people with Master’s degrees and PhDs in science to conduct R&D. We need to work with universities so we can develop drugs that adapt to the country’s needs and that can be exported.

“From an economic standpoint, it’s an industry that generates an enormous quantity of high-tech manufactured goods in compliance with strict health regulations.”
“We have the technology and the production capacity to export generic drugs and, thanks to our regulatory system, we are equipped to make our mark on highly regulated markets like the United States and Europe.”

—In terms of markets, what would you say the prospects for the Mexican industry are?
We have the technology and the production capacity to export generic drugs and, thanks to our regulatory system, we are equipped to make our mark on highly regulated markets like the United States and Europe. Our South American neighbors are major partners and this is a region in which we also have the opportunity to expand.

The challenge will be to tap into other markets with more technologically complex products that have greater intellectual protection and where the opportunity does not lie in volume, as is the case with generic drugs, but in profitability and the impact of greater-added-value products. This is what Mexico’s pharmaceutical industry is working toward.

—Speaking of high-added-value products, how important are biotech drugs in the Mexican industry?
Some call it the medicine of the future; I’d say it’s medicine that’s already on our doorstep. Biotechnology is one of the areas in which we are going to see huge advances. Others are nanomedicine and immunotherapy.

Due to their complexity, biotech drugs require hefty investment in R&D, equally hefty investment in clinical studies and a production capacity in line with these investments. These are three important and costly components, not to mention the most important of all, which is the availability of highly qualified biotechnicians, statisticians and engineers.

Are we in a position to develop biotech drugs? The answer is yes. We have the capability to develop generic biotech drugs, but we also have the capability to develop innovative ones.

What is the market for products like these? I’ll give you an example: in terms of value, the top six products tendered by the Mexican Social Security Institute are all biotech drugs valued at some 6 billion pesos.

Biotech drugs are a priority for the country, as cancer survival rates go to demonstrate: in 2000, this rate was lower than 30%, but today, thanks to the development of biotech drugs, it is 56%. This is a significant increase and if we continue down this path and embrace new technologies, I am convinced we can push it up even more.

—What is the country’s status as regards medical devices?
Medical devices are at the cutting edge of technological innovation. A merging of information technologies, flexible manufacturing and big data applied to health issues, these are essential to hospitals and individuals who need to keep track of the evolution of their illness and ensure they are administering the right drug dosage.

Medical devices are also strategic to preventive medicine because they enable us to obtain early diagnoses and statistics that tell us about the progress or evolution of certain therapies. They also enable us to implement controls that keep hospital operating costs in check and open up opportunities for exploring new courses of treatments.

Mexico is ranked among the world’s leading exporters of medical devices. We are a major international actor and tick off all the boxes required of a priority, strategic industry.

—No doubt we have a long way to go in this sector.
If you take a closer look at international competencies in robotics or information technologies, you will see that Mexico is always in the top three.

There can be no arguing with the fact that we are prepared and innovative enough to take the lead in the medical devices market. It is a sector in which health sciences overlap with areas like engineering, information sciences, Industry 4.0 and the training of new human resources.

“Biotech drugs are a priority for the country, as cancer survival rates go to demonstrate: in 2000, this rate was lower than 30%, but today, thanks to the development of biotech drugs, it is 56%.”

—What is the country’s status as regards medical devices?
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Te invitamos al espacio en el que juntos seguiremos forjando el desarrollo sustentable de la industria del acero en México.
Mexico has followed the doctor’s orders and is fast on its way to becoming an R&D hub for the pharmaceutical industry in Latin America, says Dagoberto Cortés Cervantes, president of the National Association of Drug Manufacturers (ANAFAM).

With a market valued at 300 billion pesos a year, this is a strategic industry that creates some 100,000 direct jobs and 350,000 indirect ones, and that exports to the United States, Central and South America, Europe and Africa.

In interview with Negocios ProMéxico, Cortés talks about the promising future of a sector that, according to ANAFAM data, invests some 27 billion pesos a year in R&D.

—The pharmaceutical industry is hugely important to Mexico. How does ANAFAM perceive it?

The Mexican pharmaceutical industry supplies an extremely large market: 3.5 billion units or boxes of medication a year, 51% of which are purchased
by the public sector and 49% by the private sector. The market is valued at 300 billion pesos a year; with generic drugs accounting for a significant portion of this figure—70% of private-sector purchases, rising to 80% in the case of the public sector. This clearly shows that generic drugs have gained ground on all fronts—just ten years ago, they barely accounted for 10% of private-sector purchases. This can be attributed to the introduction of new regulations a decade ago, making it mandatory for all generic drugs to undergo a series of tests, like equivalence tests, which compare the efficacy of the new therapy and the existing one on human beings, before they can be registered. Mexico is the only country in the world that runs tests like these that are 100% reliable. Other countries like Brazil, Colombia, Chile, Ecuador and Argentina do tests too, but not like in Mexico, where they are conducted for cardiovascular and neurological diseases, cancer and other ailments.

How do Mexican pharmaceuticals rate on the global market?
The market for Mexican medications has grown and export opportunities are rife. For example, in the field of biotechnology, a discipline that has advanced rapidly worldwide, the government and the industry in general have responded to the needs of the Mexican population by developing biocomparable drugs, which are generic versions of biotech therapies. The goal is to guarantee people have access to new-generation medications at affordable prices and for these to be available at government institutions like the State Workers Social Security and Services Institute (ISSSTE) and the Seguro Popular health program. It also makes sense from an economic perspective, enabling the government to treat more patients on the same budget.

Mexican-made pharmaceuticals are of a high standard, with 85% of finished export products going mainly to Central and South America—Guatemala, El Salvador, Costa Rica, Colombia, Chile and Ecuador—, although exports to Europe and Africa have also increased and another 8% is purchased by the United States.

What part does research play in all this?
R&D is the lifeblood of the pharmaceutical industry. According to the Mexican Institute of Industrial Property (IMPI), this is the sector that has filed the most patent applications in recent months. Of those applications, 40% were filed by Mexican companies, demonstrating that the domestic industry is intent on innovating.

The Mexican government has declared the pharmaceutical industry strategic to the country's development. What does this imply?
It's a declaration we've waited a long time for and it has major implications, because it means companies can gain access to programs that foster development and provide continuity. An industry classed as strategic has competitive advantages, especially when it comes to signing trade agreements with other countries, and even more so when you're talking about one that creates over 95,000 direct jobs and 350,000 indirect ones, most of which are related to R&D. There can be no doubt this is the sector that employs the most people with Master's and PhD degrees in the country.

As for the future, it waxes promising, provided we continue to innovate. The incoming federal administration has already expressed an interest in promoting the sector via programs and funding for R&D, with a view to putting Mexico on course to becoming a development hub for the pharmaceutical industry in all of Latin America.

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Good to go...
Over the last decade, Mexico has earned a reputation as a country that respects and protects intellectual property. Large corporations engaged in top-level research view the Mexican market as a good launch pad for their products, because they can rest assured their patents will be enforced to the letter. We have highly specialized products for cardiovascular disease, diabetes, obesity, cancer and neuropsychiatric disorders, which are in high demand on international markets, especially in South America, where therapies for diabetes, high blood pressure and cerebrovascular disease, and drugs derived from penicillin are very popular.

The Pan-American Health Organization (PAHO) has given the Federal Commission for the Protection against Sanitary Risks (Cofepris) its highest rating and this has also served to boost exports.

And on January 3, 2018, Mexico received the approval of the Pharmaceutical Inspection Cooperation Scheme (PICS), which acknowledges good drug manufacturing practices. That day, Mexico joined a group of 49 countries that comply with these practices and this has strengthened cooperation with countries in Europe, Africa and Asia, which, in turn, will facilitate exports of Mexican products. We expect to see results toward the first quarter of 2019.

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THE HEALTHCARE INDUSTRY IN THE BIG PICTURE

José Alarcón, PwC Mexico Dean Partner & Strategic Advisor for PwC Health & Pharma LS, takes a holistic view of the challenges facing the pharmaceutical and medical device sectors in Mexico.

The report *Top Health Industry Issues in Mexico: A Whole-Society Approach*, published by PwC’s Health Research Institute (HRI) in spring 2017, presents a range of opportunities for innovating and carrying on the transformation of a field that affects the life of every citizen like no other.

*Negocios ProMéxico* has gone over the document with the guidance of José Alarcón, PwC Mexico Dean Partner & Strategic Advisor for PwC Health & Pharma LS, to get a complete picture of the sector, which includes the pharmaceutical and medical devices industries.

**The Framework**

According to PwC, the role of private initiative in the healthcare sector and the role of the patient—as a consumer who demands quality service—are major counterweights to the public initiatives that have dominated Mexico for decades.

This opens the door to innovative models for public-private collaboration, based on patient satisfaction and oriented towards the resolution of those issues in which the state needs allies, namely: achieving universal health coverage; insuring a large percentage of the citizenry; preventing and caring for chronic illnesses; expanding the ambulatory medicine network; improving the distribution of medications at public health institutions; tapping the potential of new information technologies for health monitoring and quality control of services and medications; optimizing the system for acquisition of medications by the public sector and promoting innovation in the pharmaceutical sector.

Within this collaborative panorama, Alarcón has stresses the importance that clinics attached to pharmacies have and will continue to have; there are currently 15,000 of these units throughout the country. “It’s a relatively recent phenomenon,” says Alarcón.

According to the expert, the pharmacy-clinic model is expected to mature over the next few years and complement public sector activities. Four stages of development are being planned: in the first, the pharmacy clinics would serve as vaccine centers during national campaigns; in the second, they would function as entry points to the public health network; in the third stage, the pharmacy clinics would be extensions of public clinics, for example replacing the primary care or emergency services wing; and lastly these clinics would be fully staffed.

“It’s not the ideal model but we can use it to create integrated care networks that would be the point of entry to the public system on top of other access points and private networks,” says Alarcón. “Also, the public network’s medication supply would get more support within the private network, in other words, the public sector would not attempt to purchase everything and distribute it, but users could go to the pharmacy to be supplied the medications prescribed by public healthcare system professionals,” he explains.

**Integration: the Key**

Throughout the conversation with Alarcón as well as the conclusions of the PwC report, the concept of integration looms large. That is: thinking and acting in relation to value chains.

In the case of the production and distribution of medical devices in for domestic market, for example, Alarcón says: “The sector is looking to innovate by providing integrated solutions rather than selling devices in isolation. The challenge is for the regulations themselves to promote new ways to recognize the device’s value and to further encourage the penetration and use of innovative devices in Mexico, taking care that the items that enter the market have the adequate level of quality. For that reason the techno-security network should be continually improved and extended.”

So for example, the medical devices sector could take advantage of the anticipated growth in the clinical laboratory sector (*in vitro diagnostics*) in Mexico—in which 14,000 units of this type, most of them private, are already in operation. “Over a five-year period (2017-2023), Latin
America is expected to be the fastest-growing region in the world, 4.7%, and for its part, within this region, Mexico will grow 6.5%—based on Allied Market Research data,” says Alarcón.

Following on this dynamic of convergence, PwC foresees a promising future as regards to the meeting of clinical research and pharmaceutical innovation in the country. “There’s great potential to take advantage of the fact that the Mexican Social Security Institute (IMSS) is an integrated care network,” says Alarcón.

The PwC report maintains that the “Agreement to promote clinical research in Mexico,” ratified by the IMSS, the Federal Commission for the Protection Against Sanitary Risks (Cofepris) and the Mexican pharmaceutical industry, should encourage physicians to experiment with new pharmaceutical products and open new opportunities for research and development.

From PwC’s perspective, these clinical research consortiums should present ideal settings for healthcare institutions and pharmaceutical labs to gauge the results of new molecules. These measurements would furnish the baseline information for introducing innovative, if high-cost, medications through the public healthcare network.

This is where, according to PwC, the opportunity lies to create a greater number of shared-risk or value-based contracts between public and private labs. Under this model the health system would pay providers for new medications based on their success in clinical trials.

“Negotiations are under way with the IMSS so that the regulatory framework can accept the sort of payments where, for example, if a transplant succeeds thanks to the medication, payment to the pharmaceutical firm is recognized; if it isn’t successful the payment isn’t recognized and the pharmaceutical firm has to finance the palliative treatment,” Alarcón explains.

Everything points to the management of flexible medication acquisition models by the public sector—which accounts for 30% of pharmaceutical industry sales in Mexico. This would allow for costs to keep being absorbed while facilitating the inclusion of new Cofepris-approved molecules.

In this sense, another level of collaboration is feasible between consumers and pharmaceutical firms. “Awareness of success stories of innovative, high-value medications could attract the support of consumers, who are for the most part willing to pay more for them if they know the additional cost is needed for their development,” concludes the document Top Health Industry Issues in Mexico: A Whole-Society Approach.

The report also raises the opportunity for a public-private system to be created for the distribution of medications prescribed by the IMSS and other healthcare sector institutions, since, according to the Health Research Institute survey, “a quarter of all chronic disease outpatient visits resulted in a drug prescription that could not be filled,” and 58% of public institution pharmacies reported shortages of essential diabetes and hypertension medications.

“This system could combine the government’s retrospective planning and large-scale drug purchasing with the private distributor’s competence in high-frequency, low-volume distribution,” PwC suggests.

Is this scenario attractive for investment? According to Alarcón, it is indeed, due to the size of the Mexican market and its shortages and demands in all aspects of the healthcare industry: insurance, preventive products and services, and primary and hospital care, among others. “The key is to gain a proper understanding of the health sector dynamic in Mexico, because it is now a segmented sector: Successful models will be created to the extent that (investors) understand the Mexican market dynamic,” he concludes.

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INTERVIEW WITH NAHANNY CANAL REYES
PATENTS DIRECTOR AT THE MEXICAN INSTITUTE OF INDUSTRIAL PROPERTY

MEXICO, A PROLIFIC PATENT LABORATORY

The Mexican patent system is internationally recognized and has been given a top rating by organizations specializing in industrial property.

BY ANTONIO VÁZQUEZ
Two out of every three industrial property patents granted in Latin America are of Mexican origin, according to Nahanny Canal Reyes, patents director at the Mexican Institute of Industrial Property (IMPI).

The figures she provides are revealing: Mexico’s patent office is rated among the top 20 in the world by the World Intellectual Property Organization (WIPO).

In 2017, Mexico was ranked 12th out of the organization’s 191 member states, coming in 11th in terms of the number of patents granted and ninth in terms of registered trademarks.

“This positive evaluation of the Mexican patent system is the result of several initiatives. On the one hand, all IMPI paperwork can now be submitted online and this has led to an increase in applications for patents, trademarks, distinctive signs, the preservation of rights [...] and on the other, the institute has sought to find a balance between protecting inventions and divulging technological know-how in its gazette, which can be consulted and used by the public without paying royalties. This, too, has served to boost the competitiveness of the industrial sector,” says Canal.

IMPI goes over every patent application with a fine toothcomb and it takes three years on average to obtain a patent in Mexico, which, according to Canal, is about the same length of time the world’s top-ranking patent offices take.

Also, IMPI offers small and mid-size companies, higher education and scientific research institutions a substantial discount on patent fees to encourage inventors to protect their industrial property rights.

“There are two factors: first, the number of applications the institute receives, which reflects an interest in protecting industrial property rights, and second, a regulatory framework that provides this protection and that has the necessary mechanisms to enforce those rights. For a country to be attractive from an intellectual property standpoint, these two components must be present,” says Canal, adding that “procedures have been simplified. We’ve removed a burden from the applicant by offering an online service [...] we keep up with international trends to ensure IMPI maintains high standards. Once a patent application is accepted, it can be filed in other countries. This is particularly appealing to nationals, who can file their applications virtually unchanged in the United States and Canada.”

“The pharmaceutical industry, the most participative
While the IMPI patent system does not differentiate between productive sectors, the pharmaceutical industry is the one that has most exploited this model. In 2017 alone, the sector accounted for 29% of all patents granted by IMPI.

“It is a very important sector that has made good use of the patent system. In Mexico, medical technology can also be protected under the utility model concept and 10% of IMPI registrations in 2017 were exclusive rights like these,” says Canal.

Coordination between the institute and health authorities like the Federal Commission for the Protection Against Sanitary Risks (Cofepris) has catapulted the expansion of Mexico’s pharmaceutical industry. Regulatory bodies turn to IMPI when it comes to analyzing the 400-plus codes in the basic drug schedule and it is IMPI that has to rule whether the drug or medical device in question is viable or not.

All this information, says Canal, is at the disposal of the public in the IMPI gazette, which contains over 700 medical patent entries. Since 2013, the gazette has been consulted 2,300 times.

Canal believes the future holds some major challenges for IMPI. In the short term, the institute will have to implement wide-sweeping industrial property reforms that were introduced this year, and in the mid-term, it will be taking steps to bring Mexico’s patent system into line with The Hague agreements and WIPO’s regulatory framework.

“Adhering to international agreements that offer users facilities and advantages implies simplifying our system. IMPI is well aware there are many industrial creators in Mexico who use this figure to protect their designs, reason why we hope to formalize Mexico’s adhesion to The Hague agreements by 2019,” says Canal.
IN MEXICO THE RIGHT CLIMATE FOR THE MEDICAL DEVICES INDUSTRY

The Mexican Association of Innovative Medical Devices Industries brings together 32 manufacturing companies and serves 80,000 specialized employees.

INTERVIEW WITH JUAN CARLOS JIMÉNEZ RINCÓN
PRESIDENT OF THE MEXICAN ASSOCIATION OF INNOVATIVE MEDICAL DEVICES INDUSTRIES

In Mexico the medical devices industry is undergoing exponential development, thanks to a positive attitude on the part of the country’s authorities – which led to an agreement between the ministries of Economy and Health and the National Chamber of the Pharmaceutical Industry (Canifarma), by which the medications and medical devices industry was declared a priority sector.

Every year in Mexico the industry manufactures devices worth 12 billion USD, three-quarters of which are exported. The country is the world’s eighth largest producer of medical devices and the top producer in Latin America. Right now most of its production is destined for the United States market, meaning there’s plenty of opportunity to develop exports to Europe, and Asia. “The position could be improved. There’s a lot of potential to attract countries from other parts of the world,” says Juan Carlos Jiménez Rincón, president of the Mexican Association of Innovative Medical Devices Industries (AMID).

The AMID brings together 32 manufacturing companies – as a whole employing 80,000 people – which work together with the authorities to promote more efficient and transparent regulatory and acquisition processes and contribute to the safety, quality and effectiveness of medical technologies for health services.

A medical device refers to any part or equipment for diagnosing or curing illnesses in human subjects, and may include anything from tongue depressors to robotics and nanotechnology, knee prosthesis to brain and heart implants.

Mexico has long manufactured simple devices such as syringes and needles – which hold third and fourth place respectively on the global level – and increasingly produces more technologically complex items.

All AMID products possess the necessary quality standards and permits for export to Japan, the United States and Europe, thanks to Mexico’s highly demanding manufacturing regulations.

There are currently six medical device clusters in Mexico. Production is most notable in the states of Baja California and Chihuahua, followed by Estado de México, Jalisco and the Bajío region, and to a lesser extent Morelos and Puebla.

Until now the medical devices sector in Mexico has focused mainly on manufacturing, and there thus remain, according to Jiménez, great
opportunities for consumption and innovation, and for Mexican companies to conduct research and register patents.

The conditions are in place for this to happen: a regulatory environment with exceedingly high standards and on track for improvement; facilitation of foreign investment; exponential growth in the sector, which has been given priority; and robust levels of productivity. To this can be added the availability of highly qualified talent. For the past 15 years the quality of manufacturing has improved along with access to high-tech processes, and items can be produced for some of the world’s most demanding markets.

Juan Carlos Jiménez attributes these excellent resources not only to high training standards at the country’s technical institutes and universities but also to the close relationship between the producers and employers, who “are seeking a long-term relationship.”

There is yet another advantage. It has to do with the light weight and high value of the manufactured items, which can be transported for export with relative ease.

Currently most exports of Mexican medical devices go to the United States, with a small portion to Central America, though considering the Mexican industry’s high standards there are enormous opportunities to probe the markets of Asia and Europe, and at the same time stimulate local consumption.

Beyond the sales of devices, the president of AMID points out, there’s a desire to offer access to new therapeutic alternatives to the most people possible, along with innovative alternatives to improve quality of life, regardless of the health care system they belong to or whether it’s public or private.

As Jiménez sees it, the opportunity is there for Mexico to design programs and incentives to attract new investment. According to him, the support is already there for this to happen: “For example [production and sales of devices is under development in an atmosphere of high ethical standards, product marketing transfer and greater transparency].” At the moment, AMID is concentrating on strengthening the legal framework, together with the Ministries of Economy and Health and the Federal Commission for the Protection Against Sanitary Risks (Cofepris).

In the medium term, the Mexican medical devices industries is expected to fortify local supply chains, foster innovation in research and development, work toward enhancing the efficiency of government purchases and boost foreign trade. The first steps have been taken.

“The conditions are in place for this to happen: a regulatory environment with exceedingly high standards and on track for improvement; facilitation of foreign investment; exponential growth in the sector, which has been given priority; and robust levels of productivity. To this can be added the availability of highly qualified talent.”
INTERVIEW WITH ANA CAROLINA SEPÚLVEDA
HEAD OF THE EDUCATION, RESEARCH AND POLICY UNIT
OF THE MEXICAN SOCIAL SECURITY INSTITUTE

THE IMSS AND CLINICAL RESEARCH IN MEXICO

Ana Carolina Sepúlveda, head of the Education, Research and Policy Unit of the Mexican Social Security Institute (IMSS), discusses the clinical research panorama in Mexico, the advantages that the country offers for carrying out this activity and the challenges and opportunities that the future holds, as well as the role played by the IMSS for conducting clinical research in the country.

BY SERGIO ANAYA

—How well developed is clinical research in Mexico?
Clinical research is really taking off in Mexico. Worldwide some 237,000 clinical trials are conducted yearly with support from the pharmaceutical industry. In 2017, fewer than 300 were registered in Mexico. More than half the clinical trials are concentrated in the United States and Canada; if we add Europe, almost 80% of clinical research projects conducted worldwide are concentrated in those three regions. In South America almost five times as many clinical trials are conducted as in Mexico. In this sense, clinical research has great potential for growth in Mexico.

—What are the advantages and opportunities that Mexico offers for conducting clinical research?
Mexico has many advantages, which can come under four headings: the country’s regulatory framework, its health system, the traits of its population, and the existing level of integration between the different players involved in clinical research.

In Mexico there are nearly 240 research and ethics committees registered with National Bioethics Commission (Conbioética) and operating under the authorization of the Federal Commission for the Protection Against Sanitary Risks (Cofepris).

Cofepris is one of the few regulatory authorities in Latin America authorized by the World Health Organization (WHO) and the Pan American Health Organization (PHO) to certify new drugs and vaccines, and the fact that this authority is in charge of certifying the research committees in Mexico grants great importance to the clinical research that is carried out in the country.

Furthermore we have international safety standards that hospitals must comply with to be certified by the General Health Council, aimed at guaranteeing the quality of care and the patient’s safety.

In terms of the Mexican health system, there are great opportunities for conducting clinical research. The system is made up of public and private institutions, and each has its advantages and disadvantages for carrying out clinical research.

For example, public institutions like the Institute for Social Security and Services for State Workers (ISSSTE) and the IMSS have a population of beneficiaries subscribed to their services and an organized system at different levels of care. In terms of clinical research, this gives us the chance to study subjects from across the health-illness spectrum.

For their part, the hospitals and institutes of the Ministry of Health serve an open population and many of them are highly specialized in the medical care processes they offer. The national health institutes have a much larger research staff than the IMSS or ISSSTE.
In general, the public institutions have a bigger workload than the private institutions, but the latter have scant capacity to recruit patients for research protocols, nor the necessary representativeness.

Another strength is that the health institutions have highly skilled clinical staff (doctors and nurses) for patient care, and there are more staff members being trained in clinical research processes all the time. At the IMSS, for example, there’s been a marked increase in the training of medical personnel in clinical research subjects over the past five years: we’ve trained 287 doctors and nurses in certificate, masters and doctorate programs, and we currently have 224 qualified clinical researchers. In the last three years the number of clinical researchers has increased 17%.

Mexico also has great strengths for clinical research as far as the traits of its population. For one, its composition is genetically varied across the country; for another, the different age groups have a very similar representation in the country’s population pyramid. This is an advantage, particularly when compared with, say, the countries of Europe, where the pediatric population is getting smaller all the time and thus provides a smaller number of patients with the same illness.

As for the IMSS, one of the great advantages of the institution is that we provide care for nearly 80 million Mexicans – if you include the patients of IMSS Prospera. This means that we maintain a presence in every region of the country, so it can be said that the country’s entire population is represented by the population covered by the IMSS. This also means that there is access to a large number of patients with the same illness, or who are in different phases of the clinical spectrum. Also, due to the type of insurance they have, patients can be monitored closely throughout the clinical studies.

Lastly, the close connection between the institutions that participate in the process of clinical research in some way represents another advantage of Mexico. Even such institutions as the Ministry of Finance and Public Credit (SHCP) and the Tax Administration Service (SAT) have developed mechanisms to facilitate imports of new molecules to prevent delays in clinical research. In addition, there is ample support from universities interested in training healthcare personnel to conduct clinical research in Mexico.

—Why is it important for Mexico to promote clinical research?
In general terms, research offers innovative solutions to the health problems of the population; it enables us to better understand the illnesses, to develop better diagnostic methods, to seek alternatives for treatment and to develop new technologies. All of this has direct or indirect benefits – the most important one, without a doubt, being the chance for people to live longer with a better quality of life.

Other direct benefits are the standardization of procedures for medical care; improvement in the standards of care; more and better vigilance and monitoring of patients; better adherence by patients to their treatments; economic benefit for healthcare personnel, both those who participate in clinical research and those involved in patient registration procedures; the fact that patients participating in clinical research who are associated with the pharmaceutical industry may have access to innovative treatments – which are often very costly – even before they’re put on the market; and the acquisition of funds so private industry can finance other research projects and technological development (overhead).

Among the indirect benefits is the development of self-critical staff, with a culture of constant updating and improvement, and more careful and reflective everyday practice by healthcare professionals, who are also better motivated knowing they’re creating knowledge rather than just consuming it.

—How is Mexico doing in terms of infrastructure for clinical research?
There are two ways of conducting clinical research: one that has a specific area where research is conducted, regardless of medical
Since 2002, the IMSS has collaborated on major international clinical research projects and over the last six years participated in 92 studies related to the pharmaceutical industry. Currently we have existing agreements with 29 different companies.

The IMSS provides care for approximately 65% of the Mexican population and has more than 80,000 doctors and 115,000 nurses who can potentially carry out clinical research. Its infrastructure includes 5,800 family medicine units, 327 general hospitals and 36 high-scare hospitals. Daily the IMSS provides care to more than 490,000 patients on an outpatient basis and 58,000 for emergencies; it performs 4,200 surgeries and provides care for 1,244 births. We provide care for all kinds of illnesses: the most common and the least frequent, those that have a genetic origin and infectious and chronic degenerative diseases, those of newborns and of children and adolescents, those of adult women and men, and those that are common among the elderly. We have patients of every kind, of interest domestically and internationally.

The increased training of clinical staff in research processes enables the IMSS to become a clinical research leader in Mexico.

Currently the IMSS has groups of researchers organized into research networks on 11 priority issues –among them breast cancer, chronic kidney disease, cardiovascular disease, human papillomavirus infection, obesity and depression. These groups are made up of clinical staff in different delegations and Highly Specialized Medical Units. Aside from this we have five biomedical research centers and 42 research units where 250 researchers work full-time.

Since 2013, the IMSS has been modernizing its regulations and improving its electronic systems for handling protocols; in addition, the review periods for research projects have been reduced, with clinical researchers on different evaluation and project financing committees, and the Preliminary Authorized Support Unit to facilitate the registration of projects for Cofepris. We have a National Committee for Scientific Research and 84 local research and ethics committees certified by Cofepris and Conbioética.

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For the IMSS director-general, Tuffic Miguel Ortega, and the director of medical benefits, José de Jesús Arriaga Dávila, health research has been a priority issue: in the last few years the IMSS investment in health research has grown 50%, which has translated into a 19% increase in the institution's scientific productivity.

First to disseminate the research culture so that it becomes part of the work routine among staff in healthcare areas, and also to train more staff in clinical research. If we can get 1% of IMSS personnel to conduct clinical research we'd increase the number of researchers currently at the institution by 10,000%.

Mainly to direct our efforts and financial resources toward the clinical issues with the greatest impact on the institution and among our members, such as cancer, cardiovascular and circulatory problems, diabetes mellitus, mental health problems, accidents and trauma, and neurological, musculoskeletal and digestive diseases.

In the future there are three big tasks that would give a boost to clinical research at the IMSS: the creation of full-time research positions for clinical staff, which would better enable the tasks of research and clinical activity to be combined; the construction of the Siglo XXI Research Center –due to include clinical research areas for cancer and neurological, cardiovascular and metabolic diseases–, and the certification of the medical units where clinical research tasks are carried out.
INTERVIEW WITH CRISTÓBAL THOMPSON
OPERATING DIRECTOR OF THE MEXICAN ASSOCIATION OF PHARMACEUTICAL RESEARCH INDUSTRIES

AMIIF, A FAR-REACHING GLOBAL VISION

Operating Director of the Mexican Association of Pharmaceutical Research Industries, Cristóbal Thompson, brings us up to speed with a scientific discipline capable of revolutionizing the social and economic fiber of an entire nation.

BY OMAR MAGAÑA

Debate on Mexico’s potential as a provider of clinical research services for the global pharmaceutical industry would not be complete without the input of the Mexican Association of Pharmaceutical Research Industries (AMIIF).

AMIIF represents leading companies in the field whose investments hold the key to scientific discoveries that could potentially save global society from new pandemics and do away with scourges that have plagued mankind for decades.

In interview with Negocios ProMéxico, AMIIF Operating Director Cristóbal Thompson talks about what the industry is currently working on and gives us an overview of the new horizons it is headed for.

—What challenges does the AMIIF face in the 21st century?

The AMIIF represents 60 Mexican and international companies that conduct clinical research in Mexico. Of these, 44 are pharmaceuticals and 16 are devoted solely to research.

The main challenge we face is how to play our part in making new therapies more accessible. In recent years, we have seen a rebirth in innovation and ground-breaking discoveries, like treatments for hepatitis C, cancer and cardiovascular problems, and vaccines that have a tremendous impact on the population. Nevertheless, only 10% of the innovative drugs
approved by the Federal Commission for the Protection Against Sanitary Risks (Cofepris) are offered by health institutions.

In the last year and a half, we have made progress transitioning from the traditional model where we were merely suppliers of inputs to being partners that contribute to the results of the health sector, especially as regards the Mexican Social Security Institute (IMSS). We are looking for ways to bring health institutions patient solutions whose costs are proportionate to results.

Another topic is Mexico’s potential to attract investment in clinical research. For more than three years, we have been holding talks with institutions like ProMéxico and Cofepris. We set up a roundtable that has been operational for a year and a half and that has brought together more than 60 representatives of the public and private sectors in an effort to bring protocol approval times into line with international standards, which, in turn, will lead to a substantial increase in the number of clinical research studies conducted in Mexico.

—How can Mexico tap into its potential as a global clinical research hub?
We have large institutions with research capabilities, researchers and a sizable population with non-transmittable diseases, all of which facilitates clinical research. The potential is huge.

Just to put things into context, the global innovation industry invests 140 billion USD a year and eight out of every ten USD invested goes to clinical research. Mexico is number 21 on the list of countries that receive investment in clinical research, but over the next three to five years we aspire to rank among the top ten.

—Since you took over as operating director of the AMIIF, you have insisted on the need to join forces with the various actors involved. You have already mentioned cooperation with government institutions, but what role has the academic community played?
A prime example is the Autonomous University of Nuevo León. Three years ago, we entered into an agreement that has enabled the university to attract more research projects. It is now one of the universities in the country that conducts the most research work and that has developed the most patents. All in all, it is a very successful model.

In the coming weeks, we will be meeting with the National Polytechnic Institute. The idea is for them to give us a presentation on what they have to offer the industry and for the industry to tell them what it needs. We also have a meeting scheduled soon with the National Autonomous University of Mexico (UNAM) to discuss agreements.

—What would you say are the industry’s primary needs?
The industry is not only focused on research into non-transmissible diseases like cancer, diabetes and cardiovascular problems—following the recent outbreak in tropical diseases, the
international community is investing in cures for diseases like tuberculosis, a new malaria vaccine developed by a foundation and an AMIIF company has just come out, and research into Ebola vaccines is being conducted.

Microbial resistance is a problem that claimed more than 500,000 lives worldwide in the last year. If we don’t prepare ourselves, a pandemic could cause up to 10 million deaths by 2050. Two years ago, the World Health Organization called on the private sector to contribute to global programs. In response, an alliance of 100 generic and innovative drug companies was formed under Thomas Cueni, director of the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA), and investments of 2 billion USD were approved for the development of new antibiotics and to strengthen national information systems so data could be exchanged more efficiently in the event of outbreaks of microbial resistance.

The AMIIF, via its national representatives and international alliances, has approached these global groups to communicate to them that Mexico is a key actor that could play a decisive role in years to come. The goal is to promote Mexico and its enormous potential as a receptor of investment.

—Intellectual property is critical to the industry. Have you set any goals as far as patents and registrations are concerned?

Mexico has a good intellectual property standard. There is room for improvement, particularly as regards the protection of clinical data, and this will benefit both Mexican and international companies.

Time limits for data protection are important because these are connected to investment in the country. We are in talks with the authorities, whom we know for a fact acknowledge the value of intellectual property and this benefits all actors, not to mention providing certainty for long-term investments.

—How important are information technologies to clinical research?

It’s a critical issue, not just in terms of transparency, but efficiency. Dr. Roberto Tapia, president of the Carlos Slim Foundation, has shown us the importance of following up on information.

In clinical studies, it’s viable to create subgroups of patients so we can develop—based on the data we glean from them, taking into account confidentiality and other sensitive issues—personalized and genomic drugs. It’s all about finding the right medication for each patient.

The generation of data and digital health are basic components that are going to enable us to come up with much more efficient, precise treatments for individual patients.

—What will we see and hear from the AMIIF in the near future?

We recently attended a forum on the Progress and Prospects of Clinical Research in Mexico at the UNAM and are scheduling another meeting with ProMéxico. We will also be calling on the incoming administration to join us in our efforts and have been invited to international events, where we will be championing Mexico’s cause.

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“Mexico has a good intellectual property standard. There is room for improvement, particularly as regards the protection of clinical data, and this will benefit both Mexican and international companies.”
INTERVIEW WITH LUIS HERNÁNDEZ
SECRETARY OF THE ASSOCIATION OF CONTRACT RESEARCH ORGANIZATIONS WITH OPERATIONS IN MEXICO

ACROM, CHAMPIONING COMPETITIVENESS

Luis Hernández, secretary of the Association of Contract Research Organizations with Operations in Mexico (ACROM), is confident Mexico can attract clinical research projects of global status. The country’s private initiative and public institutions, he says, have reached consensus on the best way to promote innovation and develop treatments that societies around the world —Mexico included— will be demanding in years to come.

BY OMAR MAGAÑA
—What determines the kind of clinical studies conducted by Contract Research Organizations (CRO)?
In Mexico, trends in industry-sponsored clinical research are related to international demand. The studies most requested this year have been in the area of oncology, whereas three or four years ago it was cardiovascular and endocrine studies related to diabetes.

—How does the work of CROs operating in Mexico impact the development of clinical research in the country?
The Mexican market is very attractive to those who plan on registering their final product once the required efficacy and safety tests have been conducted in an open population. In this respect, there is a lot of interest in positioning Mexico as one of the region’s most popular destinations for clinical research projects, along with Brazil and Argentina.

We are among the Latin American nations with a tradition of clinical research and lately, there have been more forums where feedback on our research and our work has been aired. ACROM currently represents 16 companies—two of which are Mexican—and it has taken us more than 20 years to forge out these academic and institutional spaces, including forums at health centers.

The industry has entrusted us with its clinical studies because we are fully focused on their projects and have the capacity and trained personnel to conduct them. Approximately 60% of clinical research studies in Mexico are currently conducted by CROs.

—On the subject of human talent, how many people are involved with CROs in Mexico?
There are approximately 1,000 researchers working on clinical studies sponsored by the pharmaceutical industry or CROs. For administrative purposes, only the lead researcher is registered with the health authorities, but each of these has a staff of ten people on average, including researchers, coordinators, nurses and administrative personnel.

—What role do Mexico’s universities play in producing new talent?
We are finally seeing the results of ten to 15 years of work with universities like the National Autonomous University of Mexico, the National Polytechnic Institute and private institutions like the Tecnológico de Monterrey and La Salle, whose study plans now include clinical research.

In the last five years, we have been reaping the fruits of our efforts to raise awareness among universities and institutes of the need to educate professionals in this field, with a focus on industry-sponsored research, which is different to basic research.

—How do you work with other institutions in the clinical research ecosystem?
ProMéxico is among the public entities that are making an effort to attract clinical research to Mexico, while the Federal Commission for the Protection Against Sanitary Risks (Cofepris) has allocated a larger budget to its health authorization area and the training of specialized personnel to evaluate protocols and follow up on matters related to basic, clinical and commercial research.

This has created a huge window of opportunity that makes our country attractive. The fact that the health authorities are taking an interest in the development of the sector and are implementing policies to digitalize procedures, make them more transparent and reduce processing times provides greater predictability. For example, a procedure that used to take 200 days might take from 70 to 90 days now.

Likewise, health institutes and government hospitals have trained their research ethics committees to respond to demand for protocol reviews and periodic reports on the progress of clinical studies.

This indicates that every party involved in the ecosystem is interested in maintaining the country’s level of competitiveness. We are now seeing research ethics committees and protocol review boards taking action to promote clinical research and attract innovation and studies for new therapies to the country, including rare diseases.

Three or four years ago, ProMéxico invited us to help promote investment in Mexico and we have had the opportunity to participate in their forums. They have even invited us to their offices to meet with actors interested in conducting world-class clinical research.

—What obstacles have you identified to clinical research in Mexico?
The main challenge will be to ensure our administrative processes continue to instill confidence and to provide certainty as to response times and our capacity to handle more clinical research studies. This will require continuity in the changes implemented by health institutes and government hospitals, where we have

“Mexico leads the way in Latin America in biotechnology regulations. The structure of its regulatory framework makes the country attractive to clinical research projects in biotechnology and this affords us the opportunity to participate in the development of innovative drugs.”
human resources trained to identify patients and protect their personal integrity.

Institutes that previously had no interest in industry-sponsored clinical research are now participating with greater conviction, while research subjects participating in clinical studies now have the support of qualified ethics committees to protect their integrity. This is a process we need to complete so patients have access to innovative treatments.

—How much weight does biotechnology have in the clinical research studies conducted by CROs in Mexico?

Mexico leads the way in Latin America in biotechnology regulations. The structure of its regulatory framework makes the country attractive to clinical research projects in biotechnology and this affords us the opportunity to participate in the development of innovative drugs.

A good example is a biotech drug to treat hepatitis C. The drug, which was first approved by the FDA and the EMA and then Mexico, now features on the basic drug schedule, illustrating the importance of clinical studies in making biotech and biosimilar drugs accessible to patients.

—Where is ACROM at now?

Some ten years ago, several CROs with operations in Mexico realized we needed to create this association so we could get our voice heard more effectively and communicate to the authorities that we are committed to quality and that we are interested in conducting clinical studies in which the population is guaranteed the ethical, transparent conditions a research protocol implies.

ACROM is renowned for its professional staff and administrative expertise, which are both magnets for clinical studies. Our mission is to guarantee our clients quality information and train our staff so we are an attractive global option.

We provide a full service and have the specialized personnel to create protocols, organize information and handle all the administrative and regulatory issues associated with conducting a clinical study in Mexico.

We have spearheaded this strategic partnership with ProMéxico and it’s been a win-win situation all around: the population has studies with innovative molecules, the country benefits from more investment and patients have access to drugs that were not previously available.

—What do you see in the future?

Digitalization and technological innovation in administrative procedures. Cofepris is leading the way in this area, but institutes and ethics committees are also doing their bit to facilitate the process and expedite procedures for the conducting of studies in Mexico. This all needs to be set down in laws and regulations, so we can enjoy regulatory predictability, transparency and competitiveness as a country in the long term.
IBT, PUTTING SCIENCE FIRST

The Biotechnology Institute (IBT) at the National Autonomous University of Mexico (UNAM) promotes basic research as part of its mission to create new knowledge, but it is also involved in pharmaceutical programs with concrete practical applications. Director Dr. Tonatiuh Ramírez talked to Negocios ProMéxico about the institute and its work.

BY OMAR MAGAÑA

—What should we understand by “biotechnology” in the 21st century?

Biotechnology is a very broad field that encompasses countless areas of human activity. There are three different stages to its evolution: traditional, classic and modern.

Traditional biotechnology includes things like beer, wine, bread and cheese-making. It is the biotechnology that has been with us for millennia and that is associated with the transformation of products by the action of microorganisms. But because we did not know the science behind these transformations, they were sometimes attributed to magic. It wasn’t until the 19th century that Pasteur discovered they were produced by the action of specific microorganisms—yeast or enzymes acting on substrates such as carbohydrates.

In classic biotechnology, we begin to see the introduction of scientific formalism with the rise of microbiology and its applications, not just to food, but to solvents and precursors via the fermentation process. The most significant of all these was penicillin, which became one of mankind’s chief medicines in the early 1940s.

Then, in the mid-1950s, the decoding of the structure of deoxyribonucleic acid (DNA) gave us a clear understanding of how genetic information is transmitted from one organism to another and how this knowledge can be used to manipulate an organism’s genetic makeup. But it wasn’t until the mid-1970s that we saw the first results of genetic recombination with the production of insulin and human growth hormone, which were the first proteins to be produced using bacteria. These were reproduced in bioreactors so they could be mass-produced, marking the advent of modern biotechnology.

IBT focuses on biotechnology based on knowledge of basic molecular processes, the transfer of genetic information and how that information is coded in substances like proteins.

We have teams working in the areas of agriculture, veterinary and medical science, energy, the environment and food. It’s a very large institute with a community of 1,000 members.

—Do any of these research areas prevail over the others?

The first recombinant DNA products to take off were pharmaceuticals. Today this is one of the most highly consolidated industries in the world and at IBT we have teams developing vaccinations, biotech and especially biosimilar drugs.

Then we have other teams working on antivenoms and yet others conducting exploratory research on models of diseases like Alzheimer’s, cancer, obesity and inflammatory problems.

—Are the projects you are working on designed exclusively to meet the needs of the pharmaceutical industry or are they purely for the sake of scientific research?

We are engaged in both lines of research: basic research where the researcher is at liberty to...
study phenomena and look for answers to national and/or international questions and problems he or she deems relevant and research dictated by market needs. In the latter case, we have several research groups working on projects commissioned by companies for the development of specific drugs or technologies.

—In Mexico, the state is a natural patron of the sciences, but how important has private-sector financing been?

The IBT has two main sources of financing: government funding, put up mainly by the National Science and Technology Board (Conacyt) and the UNAM, and private funding. Traditionally, government funding has been channeled into basic research and technological development projects.

—Can you share some cases where you have successfully forged ties with industry?

I can give you some very clear examples in the case of biopharmaceuticals. We have been working with PROBIOMED for over 20 years, a collaboration that gave rise to the production—for the very first time in Mexico—of recombinant biopharmaceuticals used in therapies and vaccines.

For the last five years, we have been working closely with Liomont on vaccines and biopharmaceuticals. We also have a very successful working relationship with Laboratorios Silanes for the manufacture of scorpion antivenins and with other companies like Veteria for the production of antivenins against bites from other types of animals.

—Now that you mention Liomont, they are focusing on biosimilar drugs. What do you think the prospects for these medications are in Mexico?

The global market for biopharmaceuticals exceeds 230 billion USD, equivalent to roughly 20% of the total value of the pharmaceutical market, compared to just 10% a decade ago. By 2023, it is estimated the market for biopharmaceuticals will soar to 350 billion USD.

The list of products is constantly growing. Biopharmaceuticals are used to treat everything from hemophilia, cancer and diabetes to infectious...
diseases, arthritis, afflictions of the central nervous system and genetic disorders. What is interesting is that patents are starting to expire and this opens the floodgates to biosimilar medications.

Biosimilars are a wonderful opportunity for Mexican companies to start acquiring technology and know-how, so they can master the basics of biotechnology and enter the market more easily. Under such a scenario, we would eventually have an industry with the capacity to innovate.

Producing biosimilar drugs in Mexico will translate into economic wellbeing for the country, not to mention highly specialized jobs and high-added-value production chains. Also, biotech drugs tend to be very expensive and their patents are usually held by one single company, but we have seen prices drop significantly with the introduction of biosimilars, which means greater availability of life-saving drugs.

—What aspects does Mexico need to concentrate on to secure its place in the global biotechnology industry?

Mexico is still far from taking the lead in the industry, but we have some major advantages, not least well-established academic and scientific sectors that are familiar with and have mastered the subject. What we need to do now is improve coordination between academia, companies and government.

—This is a field in which ethics plays an important role. Is the IBT empowered to oversee good practices?

This is a very important issue. The IBT has a Bioethics Committee and we recently set up a National Laboratory for the Production and Analysis of Biotechnology Molecules and Medicines (LAMMB), which has been certified by Cofepris as an approved third party.

This lab provides basis support for the Mexican industry in analytical and product development matters. It could be described as an industry powerhouse of sorts in that it provides Mexican companies looking to enter the biotechnology business with scientific and technological expertise, infrastructure and know-how.

Our academics also sit on the Subcommittee for the Evaluation of Biotechnology Products (SEPB), so we have a scientific and technical authority, but more importantly, we are free from economic obligations, which means we are at liberty to hand down unbiased opinions on the relevance, quality standards and safety of these drugs.
INTERVIEW WITH GABRIELA DÁVILA LOAIZA
PRESIDENT OF THE COMMISSION FOR RESEARCH AND TECHNOLOGICAL DEVELOPMENT OF THE NATIONAL CHAMBER OF THE PHARMACEUTICAL INDUSTRY

MEXICO SETS THE SCENE FOR QUALITY CLINICAL RESEARCH

Mexican authorities have crafted policies to facilitate the development of public protocols, and within five years the country is expected to rise to the top ranks of new molecule research worldwide.

BY SANDRA AGUILAR

Mexico has done its utmost to offer more competitive conditions and provide guarantees to investors for clinical research protocols, says Gabriela Dávila Loaiza, president of the Commission for Research and Technological Development of the National Chamber of the Pharmaceutical Industry, (Canifarma).

Through its public policies, she adds, the country has developed different conditions to promote the development of applied medical research within its borders. “We’ve witnessed the contributions by the authorities to encourage faster, more efficient processes,” she says.

For Pfizer and other pharmaceutical firms and scientific institutions based in the country, clinical research is their raison d’être. Taking specific questions as their starting points, they evaluate the benefits and controllable adverse effects of new or modified molecules for the prevention and treatment of illnesses.

In the past year, Pfizer invested 276 million pesos on research and development in Mexico, which brings the amount that the firm has invested in the country so far to 1 billion pesos. Of its 87 studies worldwide, 38 are concentrated in Mexico. More than 1,000 Mexican patients are being treated at 80 research centers, both public and private, mainly in the fields of oncology, neurology, cardiology, autoimmunity, hematology, metabolism, gastrointestinal illnesses, pain, inflammation, dermatology, infectology and immunology.

As Gabriela Dávila tells it, this activity has given the lab a deeper understanding of certain health conditions, while also resulting in the care of more patients through the development of new molecules, research and the training of the country’s physicians within a framework of ethics and best practices.

For the president of Canifarma’s Commission for Research and Technological Development, the term medical protocols refers to innovative treatments, investment and knowledge transfer.

When a country facilitates clinical research, she explains, its doctors benefit by participating in the development of new therapies with patients who may not be able to afford it otherwise.

The participating public and private institutions stand to gain as well. “We seek medical and research centers of an excellent standard with whom we can undertake a series of negotiations, among them financial agreements: how much the institution and the participating physicians will be paid should be specified,” Dávila explains. For ethical reasons, the patients receive no money though they do get innovative treatment and all the necessary lab tests.

In Mexico the regulatory authority, the Federal Commission for the Protection Against Sanitary Risks (Cofepris), and ProMéxico have played a very important role for the labs and scientific institutions striving to demonstrate the efficiency of a particular molecule, says Dávila.
The impetus provided by public policies has placed the quality of the country’s facilities above those in most other Latin American countries. But still more can be done. Right now, Mexico is in 21st place worldwide in development of protocols for clinical research. The goal is for it to climb into the top ten within the next five years, says Gabriela Dávila.

As she sees it, the country is already prepared for this opportunity, which entails the challenge of streamlining processes so that research may begin within 140 days from the time an application is submitted for a new protocol.

“When a pharmaceutical company works with important molecules it looks for nations with competitive regulatory processes,” says Dávila. She goes on to say that pharmaceutical companies can cut the time it takes to research new molecules in half by overlapping several stages of the protocol, as long as it doesn’t compromise their patients’ safety. This kind of research, known as basket or umbrella trials, could reduce the price of recently developed medications.

To achieve their aims, pharmaceutical companies cultivate connections with the Mexican government and its institutions. In 2017 an agreement was reached with the Mexican Social Security Institute (IMSS), a public institution that serves nearly half the Mexican population, to start research at their care facilities with legal certainty.

At the moment a commitment is being sought from the Mexican government so that by August 2018 the procedures for starting new protocols can be digitized and streamlined.

An agreement has also been reached with the National Institute for Cancer Research, so that when basket protocols reach Mexico they’re dealt with in an official capacity to expedite research start-ups and shorten processes.

For their part, the pharmaceutical companies should commit themselves to formulating clearer, more efficient research processes.

Can Mexico climb from number 21 to 10 worldwide in the quantity and quality of clinical research protocols? Yes it can, says Gabriela Dávila, who pointing out that, “The work that’s been done up to now is very important and there now exist a number of medications due primarily to research conducted in Mexico.” The idea is to keep on doing it.

“In Mexico the regulatory authority, the Federal Commission for the Protection Against Sanitary Risks (Cofepris), and ProMéxico have played a very important role for the labs and scientific institutions striving to demonstrate the efficiency of a particular molecule,” says Dávila.
TRIGGERING MEXICO’S DEVELOPMENT

Exports
million usd in 2017

9,394

1,150

Mainly to

Health industry

Domestic market
million usd in 2017

13,106

9,568

Foreign Direct Investment
million usd
from 2007 to 2017

7,261

2,063

Researchers trained in the most stringent regulatory standards and with experience in all therapeutic areas and population groups (children, adults and senior citizens).

More than four decades of experience in clinical research.

Competitive costs and a high level of specialization at all clinical research phases.

237 Research Ethics Committees (REC) for the approval of research protocols.

United States

Panama

Columbia

Ecuador

Brazil

Germany

Italy

FIGURES
Approved clinical research sites, hospital infrastructure and systems for the monitoring of patients' medical care

Approved clinical research sites, hospital infrastructure and systems for the monitoring of patients' medical care

The Federal Commission for the Protection Against Sanitary Risks (COFEPRIS) is required to authorize clinical research protocols in just 90 days—a very competitive time frame compared to other Latin American countries

Mexico has enormous potential for the recruitment of patients on a large scale and an extremely diverse epidemiological profile
INTERVIEW WITH MARÍA TERESA SOLÍS TREJO
UNDERSECRETARY OF TOURISM PLANNING AND POLICY
AT THE MEXICAN MINISTRY OF TOURISM

PUBLIC POLICIES TO DRIVE MEDICAL TOURISM

In Mexico, medical tourism is a strategic sector driven by a specialized advisory board and strategies geared to the creation of a solid country brand.

BY OMAR MAGAÑA

It has been a year since the establishment of the Medical Tourism Advisory Board (CCTM), the body that centralizes and arranges the requests and propositions of public, private, academic and citizenry sectors regarding an industry spearheaded in Mexico.

The interview that Negocios ProMéxico had with María Teresa Solís Trejo, Undersecretary of Tourism Planning and Policy at Mexico’s Ministry of Tourism, is, therefore, most timely. During the conversation, Solís Trejo, expert in tourist destination development in emerging economies, highlights the role of the current Mexican government administration and its minister of tourism, Enrique de la Madrid, in the design and application of public policies aimed at organizing and managing a sector that developed organically in the country.

The undersecretary recalls that, in recent years, border cities and major tourist destinations in Mexico, especially beaches, have become attractions for foreign citizens, mainly Americans and Canadians, who come to the country for the medical care of Mexican physicians at unbeatable prices in comparison with health service tabulators in their home countries. According to Solís, each year, an estimated 1.7 million people visit Mexico seeking medical attention, and this figure could increase fourfold in the next 10 years—with appropriate management involving the private sector and government organisms.

“Until today, there had not been any direct involvement by the tourism sector (Ministry of Tourism),” Solís states. Starting with a review of trends and the long-range outlook of the current administration, the CCTM was established, precisely to regulate the activity and ensure that patients traveling to Mexico receive quality service, on the one hand, and on the other, to situate medical tourism as a strategic sector, given that it contributes to the creation of new, high-end jobs, currency generation and development of various regions in the country.

The CCTM has a president; a group of board members from the public, private, academic, research and consultation sectors; a technical secretary; an advisor and guests from civil society. According to Solís, medical tourism clusters in the country, the Mexican Association of Insurance Institutions, and the National Association of Private Hospitals also participate.
“The idea is to have participatory planning, with clear rules, and it is particularly important that when resources are assigned to promotional activities by the federal or state governments or promotion offices in the specific destinations, they make absolutely sure that we are promoting a formal and duly regulated project. Furthermore, we are looking to solidify efforts and produce a country branding construction exercise within the medical industry,” Solís explains.

A Virtuous Circle
Addressing medical tourism in a structured way has shed light on other opportunities. Up to now, for example, citizens of the United States and Canada who do not have insurance or full coverage in their country have been considered target users. Now, according to Solís Trejo, the Mexican medical tourism industry is also considering the insured and self-insured companies in the United States.

Among efforts to attract policyholders, for example, commercial airlines collaborate offering packages with medical services, through which American business or frequent travelers can exchange their miles for check ups at private Mexican institutions. The goal, says Solís, is for these patients to experience the quality and reliability of medical services in Mexico. Furthermore, the possibility has been raised of American insurers offering their clients policies with services that may be redeemed in Mexico.

In the latter case, companies have removed insurers by providing health services to their employees themselves. To that end, they hire physician networks that do not restrict Mexican professionals from participating in such contracts.

This is expected to contribute to the construction of the country brand, with Mexico a world leader in the sector. Solís points out that the country has the benefit of a demographic bonus, as well as infrastructure, medical equipment, consumables, topflight tourist destinations and a customer service and attention model that is known to be close and personable.

Every year, Solís underscores, Mexico produces 16,000 new graduates in medicine ready to enter the labor market. “Medical tourism gives us the option of creating high-end jobs for these doctors,” she says.

“We are looking to solidify efforts and produce a country branding construction exercise within the medical industry,” Solís explains.
Ongoing Adjustments
A complex, multifactorial area like medical tourism requires public policy unification. Among the fields to address quickly, María Teresa Solís Trejo mentions the following:

- **The regulatory framework**
  “We have the General Division of Professions to certify medical staff; we have a whole setup with specialty boards and, then we have the General Health Council, which certifies medical facilities, hospitals and clinics. We are reinforcing this structure to strengthen its application and refine the sections that have to do with medical tourism, which were created for physicians in the Mexican market and need to be shored up and refined to service the international market,” Solís explains.

- **Statistics**
  “We are working with Mexican states and the National Association of Private Hospitals to produce statistics and find out how many patients are coming to undergo surgery in Mexican hospitals, treatment types and countries of origin,” Solís adds.

- **Promotion**
  “The sales promotion and publicity actions we develop are highly focused on the target markets, not only patients but also employers, so that we create a brand image,” Solís states.

- **Tourism industry support**
  “Bancomext has been one of the major financing channels for hotels and resorts, plus there are Real Estate Investment Trusts (FIBRA). We believe we need to support the industry’s efforts to grow,” Solís points out.

- **Integration in North America**
  “We have to streamline importation of consumables but also strengthen the international agenda with the United States and Canada so that Mexico’s hospital and physician regulations and certifications are recognized internationally,” she declares.

- **Mexico supplier**
  “We could aspire to have certain medical services, such as Medicare and Medicaid become applicable in Mexico. Negotiating with these countries (the United States and Canada) for acceptance of certifications and eventually applying their health systems, especially considering that there are patients who decide to retire in Mexico,” she adds.

- **Technological change**
  “This industry is moving toward technology incorporation in a major way. Telemedicine is a reality and makes it possible for a physician in the United States not only to consult or give a second opinion but even do robotic surgery at a distance,” concludes Solís.

Solís points out that the country has the benefit of a demographic bonus, as well as infrastructure, medical equipment, consumables, topflight tourist destinations and a customer service and attention model that is known to be close and personable.
HEALTH TOURISM IN MEXICO

Mexico is one of the world’s most important tourist destinations. Generally associated with recreation, tourism can be done for sports, culinary, scientific, literary, archeological, religious and other purposes. It may be done in places with cultural heritage, beaches, museums and even outdoors. Depending on the possibilities, it is carried out by people of the most diverse social strata. Given all of this, there is a kind of tourism that has been gaining in importance: health tourism.

To explain the phenomenon of health tourism, it is important to keep in mind the transformations that have taken place in the health sector over the last few years. To start with, the opening up and reorganization processes of health systems in different countries in the world have stimulated the flow of foreign investment in the sphere. In turn, the agreements from the Uruguay Round of what is now the World Trade Organization (WTO), specifically in the chapter related to trade of services, include provisions for governing and driving transborder trade (telemedicine), its consumption abroad—whether because the person deliberately travels to another country to get treatment or because an emergency arises while abroad—, the commercial presence of bidders—companies that set up offices in another country to sell the service, or foreign investment in hospitals, clinics and health centers—and movement of individuals—health professionals that travel to other countries to provide their services.

Information and communication technologies (ICT), as well, have opened up the possibility of service rendering at a distance, through telemedicine, in the interior of countries and beyond their borders.

International transporting of patients has favored developing countries as a destination, both due to costs and for demographic reasons and the attraction many of them have from the tourism-cultural vantage point. In other words, medical tourists are, for the most part, individuals from developed countries who go to developing countries where medical services are offered at a quality similar to in their home countries but at more competitive costs. Many of these patients travel abroad due to the lack of access to health insurance or because the insurance they have does not have adequate coverage to encompass medically necessary and costly operations or elective surgeries, which can lead to impoverishment. They may also do it to undergo treatments, such as esthetic and dental ones, not covered by their medical insurance or because they require privacy and confidentiality—for example, patients who travel to other countries to undergo fertility treatments or sex-change procedures. They may be dissatisfied with the health system at home.
and try to avoid long waiting lists, or perhaps the programs do not include the treatments sought. Finally, health tourism offers the chance to travel to exotic places and have a vacation in luxurious yet affordable surroundings.

Additionally, there are factors that contribute to the flows of travelers to specific destinations for curative purposes, wellbeing and wellness, and even to participate in scientific activities associated with certain diseases and therapeutic methods. Outstanding among them are geography, features of the health systems in their countries of residence vis-à-vis in other nations, development of the medical profession in the destinations and, furthermore, the demographic transition, given that increased life expectancy can lead to the appearance of ailments whose treatments are expensive as well as labor intensive. For instance, the Philippines is known worldwide for exporting male and female nurses to provide their services in various nations around the globe.

In developing a competitive medical tourism destination, the supply of medical, tourism, travel and support services must be considered. Having an advanced health sector is an essential requirement for a place to be able to offer international medical services. Therefore, to compete in this market, there must be companies that provide such services. Medical tourism must provide a range of support services as part of the value chain, such as procuring special medical tourism visas; airports with adequate equipment and facilities; special airline services; transfers; entertainment; accommodations with facilities for patients; side trips; shopping, and air and ground ambulances. Marketing and distribution activities are also necessary, as are training strategies for specialized human resources. Plus, related activities that use information technologies—for example, Medical Tourism Expos, the Star Hospitals network and the guide Patients without Borders—, medical tourism guidebooks and specialized electronic magazines should be added.

Medical tourism in any destination should use benchmarking when designing its strategy for the activity. Evaluation based on benchmarking technique processes involves comparison of practices, procedures and performance levels at different medical tourism destinations. Benchmarking refers to the best medical practices and includes the respective technology and business processes.

Thus, in relation to best practices, it has been observed that all medical tourism destinations have developed a clear view and strategic objectives and set goals with specific timeframes. Cooperation and coordination among pertinent authorities are a must.

Many medical destinations work to attract foreign and national investments through fiscal incentives for sector development. Most of the destinations offer transparent prices for their surgical and diagnostic services, often in the form of packages. International quality and safety accreditations have become a prerequisite for any hospital or clinic. Many doctors have international professional qualifications and speak several languages fluently. Various countries offer special medical tourism visas for lengthy stays besides
the fact that airlines may offer medical tourism packages, and some hotels work with hospitals to accommodate recuperating patients and those traveling with them.

The health market is broad and diverse, which means that countries can specialize in ailments, treatments and other medical services that motivate people to go to them although they live somewhere else.

All of this explains how Mexico has become one of the main health tourism destinations worldwide. The country’s geographic location, the exchange rate, the existence of qualified human resources and the costs of therapeutic procedures attract foreigners. Consequently, it is the second destination in the world, after Thailand, in the field.

Mexico is also an example of the possibilities of creating links between medicine and tourism. Being a service that is given as a result of people traveling, the geographical proximity to the United States is a factor that lends itself to it. On the primary basis of exchange between regions close to the border, every year a large number of Americans (natives and Hispanics) get different types of treatments and medications in Mexico, at a fraction of the prices on the US market. Whereas the United States offers high quality –though costly– private health services, in Canada the health system is public and universal, although insufficient in certain specialties. As for countries in Latin America, substantial progress has been made in the sector, but infrastructure and human capital are limited. These factors have led to Mexico being visited by patients from all over the continent who need dental, esthetic, fertility treatments or to deal with ailments related to obesity and stress.

We cannot ignore the fact that at some point the effects of the American health system reform will be felt, an important topic in relation to the possibilities of expansion for international trade in medical services.

With this in mind, while the consequences on medical tourism are uncertain, a substantial number of opinions on the issue are optimistic. Although the reform sets in motion a process that looks toward medical insurance coverage universalization, there is also the challenge of controlling the high costs of health services in the United States, as well as guaranteeing timely access given growing demand and an aging population.

So, medical tourism could turn out to be a viable alternative for providing insurance at a lower cost and imposing a degree of external competition on the American system. Furthermore, it would be an escape valve when facing possible bottlenecks and elevated waiting periods for certain treatments.

From this vantage point, Mexico is in a privileged position for health tourism. The millions of Mexican expatriates that live in the United States and faced with a lack of access to health services there or due to high costs, opt to travel to their country of origin for medical care, bolster health tourism in Mexico.

Mexico has 15 health clusters located on the border with the United States –Baja California, Nuevo León, Sonora, Tamaulipas and Chihuahua–, in the center of the country –Jalisco, San Luis Potosí, Puebla, and Mexico City– and the southeast –Quintana Roo and Yucatán–.

To cite an example, the Monterrey City of Health cluster, with specialized medical services, is a public-private initiative that includes participation of the Nuevo León state government, public and private hospitals, as well as universities with health-related fields of study.

In Tijuana, COSMED, a specialized cosmetic surgery clinic, sees 400 patients monthly for both office visits and surgical procedures.

Dentalia, which offers cosmetic dental services, implants, orthodontics, root canal treatment and pediatric dentistry, especially in shopping centers, has over 50 clinics operating in 15 cities around the country, including Mexico City.

States such as Quinta Roo and Yucatán receive many tourists who want to get away from stress and look for spas, spiritual or religious retreats and other services. This has led to a boom in services and infrastructure to satisfy visitors’ expectations.

The supply of health tourism services in Mexico enjoys both domestic and international accreditations. The National Certification System for Medical Care Establishments (SINACEAM) checks up on establishments that offer health services and seeks ways to contribute to their improvement and guaranteeing patient safety. Moreover, the Joint Commission International (JCI), responsible for international accreditation of health service suppliers, has distinguished Mexican institutions such as Médica Sur (in Mexico City), Obesity Control Center (in Tijuana), Galenia Hospital (in Cancún) and the Oncological Center of Chihuahua (in Chihuahua), among others. All this makes Mexico an attractive, competitive and safe destination for health tourism.

*Professor and researcher at the Faculty of Political and Social Sciences at the National Autonomous University of Mexico (UNAM).
—How developed is the medical tourism sector in Mexico?
The medical tourism sector has experienced rapid growth in our country. Currently Mexico holds second place worldwide in medical care for foreigners, with 1.2 million patients served per year. On that basis, corporate groups made up of clusters have been developed, notably in Monterrey, Baja California, Jalisco and Quintana Roo.

Worldwide, medical tourism represents an 11 billion USD business, of which Mexico earns 289 million, according to the African Development Bank. Within the country, the health tourism industry reached a value of 4.79 billion USD in 2016, and in 2017 it exceeded 5 billion USD.

—What are the main attractions and advantages of Mexico for the development of medical tourism?
Aside from its geographic location and variety of tourist attractions, there are various other factors that make Mexico an ideal destination for the development of medical tourism.

In the first place, the cost of treatment: in Mexico medical services are 36% to 89% cheaper than in the United States. To this may be added that the waiting time for a procedure to be performed is much shorter; in some cases the difference in the time it takes to receive care can be up to three months.

In Mexico medical services are of an excellent standard, and the country has top-notch hospitalization and hospital stay infrastructure.

The country’s hospital infrastructure is equipped with state-of-the-art technology. In addition, the hospitals and clinics that offer care to foreign patients have bilingual, specialized personnel, a diversified medical offering and high-quality specialties.

Currently several of the country’s states are particularly well-suited for the sector and have clusters within them that group together hospitals and companies with medical tourism-related services.

Another factor that has driven development of medical tourism in Mexico is the growing Hispanic community in the United States.

—What added value do health services for foreigners in Mexico provide?
The savings and the quality of services. Mexico offers free transportation services at the border to facilitate the transfer of patients to the country. Also, the hotel infrastructure is being modernized to offer the finest installations, not just for patients but also for their fellow travelers.

—Which services are in highest demand in Mexico?
Among the services most sought after by foreigners who go to Mexico for medical care are gastric banding, gastric sleeve placements, gastric
bypasses, hysterectomies, breast implants, rhinoplasty, facial rejuvenation, liposuction, abdominoplasty, coronary artery bypasses, angioplasty, heart valve replacements, hip replacements, hip rejuvenation, knee replacements, vertebral fusion operations, traumatology, oncology, dental implants and cataract surgery.

“What regions of the country are best developed for medical tourism services?
The states registering the biggest influx of foreigners who seek medical services are Baja California, Baja California Sur, Chihuahua, Mexico City, Nuevo León, Jalisco, Quintana Roo, Tamaulipas, Sonora, Chihuahua, Puebla, San Luis Potosí and Yucatán.

“What is the profile of tourists who visit Mexico seeking health services?
The main market for health tourism in Mexico derives from Canada and the United States, and to a lesser degree from Europe. In general these are people who are uninsured –retired people, people looking for quality medical services at competitive prices and shorter waiting times than in their home countries.

“What’s the future of medical tourism in Mexico? What are the challenges and opportunities in the sector?
Sustained growth is anticipated for medical tourism in Mexico. The public policies in our neighboring countries, particularly the United States, favor an influx of more patients to our country; likewise, the rising number of certified hospitals in Mexico facilitates the formalization and promotion of more and better services, not just at health centers but also by general practitioners.

“What projects are on the horizon to boost the development of the sector?
There are several infrastructure, connectivity and services projects throughout the country. Among them, there’s one in Tijuana, Baja California, to increase the number of dedicated lanes for health tourism at international checkpoints, which would significantly reduce waiting times when crossing the United States-Mexico border. Another in Cancún, Quintana Roo, to build a hospital specializing in joint replacement surgery and pre- and post-operative care. And some more in Monterrey, Nuevo León, were a manifesto was recently signed, by which all the players in the medical tourism ecosystem commit to promoting the development of the healthcare sector and to making the state a paragon of healthcare innovation.

“The cost of treatment: in Mexico medical services are 36% to 89% cheaper than in the United States. To this may be added that the waiting time for a procedure to be performed is much shorter: in some cases the difference in the time it takes to receive care can be up to three months.”
NEGOCIOS PROMÉXICO

GUEST OPINION

Since 2015, Mexico is committed to the United Nations Sustainable Development Goals (SDG), targeted for compliance in 2030. The third of these 17 goals refers to “Ensure healthy lives and promote well-being for all at all ages”, and is broken down into 13 goals that encompass the World Health Organization priority topics. Furthermore, being a multidisciplinary subject, most of the SDG are directly or indirectly related to health.

To fulfill these goals within the agreed upon timeframe, Mexico must deal with a number of challenges. While the country’s life expectancy at birth has increased 14 years since 1970—reaching 75 in 2015—, its growth rate has slowed down since 2000, placing Mexico below the OECD average of 80.6 years.

Particularly noteworthy among the Mexican population’s major health problems are obesity—which affects 33% of the population in Mexico and is the second highest rate in the OECD, whose average is 19.4%— and diabetes—from which 15.8% of adults suffer.

Differences in health service access, quality, and costs, can be found across the country. Health investment hasn’t reached its optimus. In some cases, this can be translated in limited access to health care and the impoverishing effect. Mexico has 2.4 physicians for every 1,000 inhabitants, in comparison with the OECD average of 3.4.

To improve the model, it is necessary to continue making progress on access to and quality of services. Achieving this is unthinkable without increasing investment levels, yet assigning additional resources does not suffice; investing must be done strategically. It is necessary to acknowledge the transversality of health and move forward with a long-range preventive focus that takes into account: innovation, which will allow for more efficient use of resources, improved health results and significant savings in the long run; indicators that enable measuring

INVESTMENT IN HEALTH: BASIS FOR SOCIAL DEVELOPMENT

Health is a core element for social development without which individuals cannot aspire to reach their maximum professional and human potential.

BY: PATRICIA FACI*
health results within the population, and transparency in all processes, to produce efficiencies.

The health situation in Mexico is of interest to companies, no matter their sector. Beyond the fact that some companies supply health consumables or services—such as hospitals, laboratories, companies that deal in medical devices, among many others—heath is an essential element for adequate performance of human capital and hence for productivity of people and the country in general.

A healthy society will be an active and innovative society, with wellbeing, energy and the necessary resources to contribute to social development. It will also be a more just society, since health is the basic and essential condition for human development.

For this reason, at the American Chamber of Commerce of Mexico, we work through our Health Committee to:

• Promote dialog and improved public-private coordination in efforts to strengthen health through supporting public policies for a better health model in Mexico; promote visibility of the information systems that systematize, unify and make performance data on health programs public; foster communication with significant actors within the sector in the United States; contribute and back initiatives for transparency in public expenditure at all three levels of government, and promote better compliance practices among membership.

• Contribute to collaboration between the governments of Mexico and the United States within the health sector. This goal is addressed through the Global Initiative on Health and Economy that was signed with the United States Chamber of Commerce (USCC) and through which we bilaterally pursue the goals cited above.

• Exchange best practices that promote the health of people within our organizations and permeate the communities in which we operate.

All these efforts contribute to better linkage with authorities to pursue the common goal of making Mexico a country with quality health accessible to all; and having ever more companies join in dealing with health as an integral factor that must take into account the quality of the physical and emotional environment in which people develop; the importance of opting for healthy habits and promoting collaborative relationships, support networks and a positive life-work balance.

*President of the Health Committee of the American Chamber of Commerce of Mexico and Executive Director of External Affairs and Communication of MSD.

“A healthy society will be an active and innovative society, with wellbeing, energy and the necessary resources to contribute to social development. It will also be a more just society, since health is the basic and essential condition for human development.”
PFIZER SETS ITS SIGHTS ON MEXICO

In the field of clinical research, Mexico ranks among Pfizer’s 15 most important subsidiaries in the world.

During 2018, Pfizer, a world leader in medications, invested around 16 million USD on clinical research at its Mexican subsidiary. Rodrigo Puga, CEO of Pfizer Mexico, expects that investment to multiply fivefold over the next five-year period.

Established in Brooklyn, New York, in 1849, Pfizer is today one of the world’s most important pharmaceutical companies. Its clinical research component has undoubtedly been crucial for its growth and consolidation over the past century.

The firm has devoted 143 billion dollars to clinical research over the past 20 years. “We want Mexico to have a substantial share of that investment,” Puga says.

For Pfizer, Mexico is one of the key points on the global panorama. The firm is currently carrying out 30 research protocols at more than 90 research centers throughout the country.

Oncology, infectology, immunology and women’s health are some of the therapeutic areas where the international firm is innovating most intensively in Mexico. Its plan is to carry these efforts over to other protocols focused on rare diseases, cardiovascular health and vaccines, among other areas.

“We have enormous expectations for Mexico. The country has a sufficient quantity of patients of the sort we’re investigating to do these studies (protocols). In addition its scientists are every bit as qualified as those of any other country. As long as agreements are signed to speed up administrative processes and incorporate more training, the total investment [in clinical research] should grow substantially,” says Puga.

The Photo & the Film

Rodrigo Puga stresses that the clinical research field has made positive advances in Mexico, but a distinction must be made between what he calls the “the photo and the film.”

“The film is the DNA: investing in clinical research, in new medications that have an impact on people’s lives. The film is quite alright. The photo needs work. Mexico has great potential to invest in medical research and we’re working hand in hand with authorities like ProMéxico for this to happen,” Puga says.

Each year Pfizer invests nearly 8 billion USD in clinical research at the global level. A big part of that sum goes to places where there are diseases that the pharmaceutical firm treats, where they have infrastructure and medical professionals, and where test protocols are guaranteed to comply with local and international standards.

“There are big areas of opportunity for regulation in terms of international standards. There are countries like Korea where they’ve understood that this industry can bring in billions of dollars, not just due to the fact that they’ve erected plants for manufacturing medications. What Korea has done is to align the various structures related to regulations so that protocols would be approved in three months or less,” says Puga.

In Mexico, he says, there have been major advances in this regard. Following joint efforts with the authorities at the Federal Commission for the Protection Against Sanitary Risks (Cofepris), the times for these processes have been reduced. The dialogue has been replicated at the Mexican Social Security Institute (IMSS) and at other institutions devoted to research.
“Two words describe Mexico: present and future. Currently Mexico ranks among Pfizer’s 15 top subsidiaries in the world—we’re taking about a company with a presence in 150 countries.”

Focus on Investment
In the past decade, Pfizer Mexico has devoted around 120 million pesos to its internal, autonomous structure to boost innovation in clinical research. Various research projects and researchers have thus been financed, and some of the experts have gotten grants to specialize abroad, among other things.

“Two words describe Mexico: present and future. Currently Mexico ranks among Pfizer’s 15 top subsidiaries in the world—we’re taking about a company with a presence in 150 countries. Looking ahead, we see 130 million inhabitants, demographic development and an active population, and this is reflected in the different types of pathologies that are on the rise. We also see a country that is growing economically and that has the potential to grow more than the average emerging economy, and at the level of the developed ones,” says Rodrigo Puga.

For Pfizer, investment in health is also a matter of human rights. “It’s a smart investment from the economic perspective, just like investing in education,” says Puga, reiterating that working closely with agencies like ProMéxico has remained vital for Pfizer in Mexico.

“ProMéxico strives to find opportunities and to resolve things that don’t work. It functions as a means to speed things up and make people aware of the country’s potential. Our experience with ProMéxico has been good, as it has highly skilled professionals dedicated to approaching and publicizing companies and industries,” Puga concludes.
NOVARTIS: A FIRM COMMITMENT TO MEXICO

Ana Longoria, General Director and Country President of Novartis Mexico, chatted with Negocios ProMéxico on the presence of the firm in Mexico, its commitment to innovation and its plans for the country.

BY OMAR MAGAÑA
—How long has Novartis been in Mexico?
We’ve maintained a presence in Mexico for over 80 years. From the beginning our main motivation has been to contribute toward the substantial improvement in the health of Mexican patients, through innovative medications and, more recently, generic and biosimilar medications of the highest quality. In Mexico, we’re committed to clinical research, the attraction and retention of talent, and close and proactive collaboration with the health system as ways to confront the country’s health challenges.

—What does Novartis produce in Mexico and where do that products go?
We produce our products and supplies in various countries, such as Switzerland, Spain, Italy, Germany, Austria and the United States, to name but a few. From there they reach all the countries where we maintain a presence, including of course Mexico, where our operations address the group’s four divisions: pharmaceuticals —innovative medications for therapeutic areas such as the central nervous system, cardiology and metabolism, immunology and transplantation, the respiratory system and ophthalmology; oncology; Sandoz —generic and biosimilar medications, and Alcon —contact lenses and visual care instruments.

Also, we’ve implemented a Shared Services Center in Mexico, which started operating in 2015 and offers support services to all the group’s divisions on the American continent, from Argentina to Canada, and even to other countries in Europe and Asia.

This center is one of the five that Novartis has installed worldwide, which says something not only about our commitment to Mexico, but also the advantages the country has to compete globally with any country in the world to procure investment in high value-added sectors such as talent, connectivity and localization.

—What are Novartis’ main activities in terms of innovation and research in Mexico?
Innovation is in our DNA. Among pharmaceutical companies we have the most robust research portfolio in the industry, consisting of 200 projects in the research and development stages. We devote almost 20% of our annual global revenues to this end, the equivalent of 9 billion USD.

In Mexico’s case, we signed a Letter of Intent jointly with ProMéxico, in which, among other things, we committed to investing 50 million USD in clinical research developed in Mexico.

Another course of innovation we’re incorporating into our operations is digitization, which we’re convinced has an incredible potential for ushering in the next phase of medical innovation. We believe that the companies that will be most successful in the future are those that see an opportunity, rather than an insurmountable challenge, in this transformation.

By this logic, we’re reimagining Novartis as a medication and scientific data company. We see our data collection, compiled over decades from thousands of studies on hundreds of illnesses, as a strategic asset that puts us in a leadership position at the head of the digital revolution in the pharmaceutical industry.

We’re digitalizing our research and development, and we’re doing it by adopting powerful trends early on, such as the Internet of Things, to obtain the richest data sets and more real-life evidence from different sources, as well as artificial intelligence, which has opened up the possibility of finding patterns beyond human ability, among others.

—What are the main advantages you’ve found of operating in Mexico?
From my perspective, one of the highlights is the talent here in Mexico. This has been a determining factor for our growth, and it shows the world that we’re a country of excellence that can compete at the global level to gain productive investment, whether for services or infrastructure.

It also seems to me that right now there is a favorable climate for dialogue and initiatives between the pharmaceutical industry and the different government authorities and branches.

—What opportunities do you see in the country for the development of clinical research and how will Novartis participate in this sector in Mexico?
This topic is particularly important because we see impressive potential in Mexico. We see investment in clinical research as one of the noblest there is, if I may be permitted to use that adjective, because it has one of the highest multiplier effects —there are studies that show that for every dollar invested in clinical research there’s an earning in the economy of three USD more— and furthermore because it’s a sector of extremely high added-value because of the industries related to this activity and the health results it provides in the country where it’s done.

Just so far, this year (2018) we’ve conducted 58 clinical studies at Novartis Mexico,
which represents growth of a little over 30% compared with 2017.

In this sense, Novartis continues to make steady strides in the commitment that it made in 2015 to ProMéxico and the Ministry of Economy to keep investing in Mexico so that our country can turn into a regional hub for clinical research.

—How do you perceive Mexican regulations in the sector? To what extent is it a factor in facilitating or hindering your operations in the country?

We’ve undoubtedly seen very significant advances in the past eight to 10 years. One clear example can be seen in the Federal Commission for the Protection Against Sanitary Risks, (Cofepris), where among other things significant efficiencies and reductions were achieved in the timeframes for granting health registrations to medications, which as a result has provided a significant increase in patent medicine alternatives, aside from the generic and biosimilar medications that are available in Mexico.

The same Cofepris has been designated by the Pan-American Health Organization (PAHO) as a regional reference agency, which means that the health agencies in the region see Cofepris as a standard for best practices, and that says something about the solidity which our health system has achieved.

There are of course areas of opportunity where we need to work harder to achieve even better conditions that would continue to position us as a competitive, secure country with a world-class regulatory framework.

—What does Mexico represent for Novartis, in terms of both the market and research and production, on the global level?

For Novartis, Mexico is one of the 15 most important markets worldwide, which is no small thing when you consider that we maintain a presence in 155 countries.

Mexico is one of the fastest growing markets in demand for access to high-quality medications and it’s a strategic point for the operation of support services for the company at the global level.

It’s also a source of talent; in just the last three years we’ve hired almost 500 people at our Shared Services Center, which represents an almost 40% staff increase.
In Mexico, we’re also piloting Centers of Excellence for illnesses such as diabetes and heart failure, at which we incorporate best practices, proven on the global level, for the protocolization of efficient handling of these diseases, with highly positive outcomes.

All of the above are reflected in our results. For quite a few years our Mexico affiliate has maintained an average annual growth rate of a little over 4%, which is outstanding for our segment.

—How does Novartis see the pharmaceutical industry in Mexico? What opportunities do you see in the country and what are your plans for the future?

I see the industry as a strategic sector for Mexico. The ministries of Economy and Health declared it as such in June 2018. This declaration is very important because it recognizes the value that the pharmaceutical and medical devices companies contribute—to the economy of course, but also to the well-being of the population and the competitiveness of the country. In particular, it lays the foundations for closer coordination with the authorities that will enable us to confront the health challenges of the future.

I’m convinced that we’re living through a very exciting period in terms of the medical advances taking place around the world, and at Novartis we have outstanding leadership in this regard. In 2017 alone we had 16 new molecules approved by the European and US regulatory agencies.

From this position, we’d like to contribute solutions and ally ourselves with the health system in Mexico. Considering that 90% of the Mexican population is covered by the public health system, which amounts to nearly 150 million people guaranteed the right to healthcare, the challenge is important. But at that size it’s also an opportunity.

We’ll continue to bring Mexico the latest medical advances in cancer, cardiovascular illnesses, migraine, asthma, Alzheimer’s and many more illnesses; we’ll keep releasing the highest quality generic and biosimilar medications, increasing people’s access to affordable medications. We’ll maintain or increase our investment in clinical research; the incorporation of new Mexican talent will remain one of our staunchest supports, and we’ll continue to adhere strictly to our code of ethics and best transparency practices. That is my vision for the future of Novartis in Mexico.

“We’ve installed a Shared Services Center in Mexico, which started operating in 2015 and offers support services to all the group’s divisions on the American continent, from Argentina to Canada, and even to other countries in Europe and Asia.”
Whenever there’s talk of research and development in pharmaceuticals and, naturally, biosimilars, the name PROBIOMED invariably comes up.

The domestically capitalized pharmaceutical company has set the bar in the sector thanks to its innovative spirit and its firm conviction that Mexico can and should be a heavyweight in the development of new molecules, the design and production of affordably priced medications, and exporting.

PROBIOMED has repeatedly attained new levels of scientific and technological innovation: it was a pioneer in the production of heparin in Mexico; it put the country at the global forefront of the manufacture of amikacin and —something that for many peers represents a true watershed for the Mexican-capitalized pharmaceutical industry— outpaced many others in the developmental research of biosimilars in the late 1980s, and put them on the market in the late 1990s.

The first of these was interferon alfa.

“Back then, there wasn’t even any specific legislation regarding biotechnological medications in Mexico, or the world—it wasn’t until 2003 that the European Union introduced the concept of biosimilars, which in Mexico were designated as biocomparables,” recalls Jaime Uribe Wiechers, the firm’s CEO.

PROBIOMED pushed for the introduction of another biosimilar, erythropoietin, in 1999. It did so with the same mission that put the company where it is today: to offer highly specialized, high-quality medications to the market at prices appropriate to the economic reality of these countries—the end result of which is that they reach a greater number of patients likely to benefit from them.

“Without erythropoietin, the life expectancy of a patient with anemia caused by kidney failure is around three to four years. When PROBIOMED introduced erythropoietin into Mexico, fewer than 5% of the patients with chronic kidney failure were treated in Mexico due to the high cost of the therapy,” Uribe explains. “PROBIOMED was one of the first companies in the world to produce a subsequent entry biotech product (biosimilar) for erythropoietin. Today in Mexico, around 95% of patients with chronic kidney failure and hoping for a transplant are treated with this medication, at a cost of less than 5% what it was in 1999. PROBIOMED is the private market leader for erythropoietin in Mexico, with approximately a 34% market share in terms of value and a 70% share of all units sold,” he adds.

In 2007, Mexico’s biopharmaceutical company—that’s the company’s tagline—introduced rituximab, used for the treatment of non-Hodgkin’s lymphoma, a lymphatic tissue cancer. Before PROBIOMED’s biosimilar, each container of the medication cost the Mexican Social Security Institute (IMSS) nearly 30,000 pesos; now it’s around 7,500 pesos, according to data provided by Uribe.
Two out of Every 10 Pesos to R&D
Jaime Uribe Wiechers says that the company earmarks 20% of its sales to R&D and to the expansion of its productive capacity. Thus, of the company’s 780 staff members, 50 work full time to develop new products and formulations.

To this can be added projects conducted in collaboration with scientific research institutes in Mexico and the improvement of production units in Tenancingo, Estado de México—and devoted to the manufacture of active ingredients— and Mexico City where two plants are located—one for orals and another for injectables.

“PROBIOMED has invested heavily in adapting its products to the regulations promoted by the Federal Commission for the Protection Against Sanitary Risks (Cofepris) with regard to biotechnology,” Uribe points out.

“Right now, Mexican regulations for the registration and control of biotechnological medications are among the most advanced in the world. Mexico has very strict and very well designed regulations. As a manufacturer of medications, PROBIOMED has had to comply with these regulations, which today translates into an edge over competitors who import medications and might have to invest in compliance,” says Uribe.

As regards the balance between domestic production based on research and development and import of supplies and finished products, Uribe is emphatic. As he sees it, the pharmaceutical industry in Mexico faces new opportunities for growth now that it’s been declared a strategic sector for the economy, and one of the main paths is triggering the creation of medications in Mexico and balancing that with what comes from abroad.

To achieve the above, he says, it is indispensable that ties be bolstered between private initiative and government, with the aim of offering better incentives to those who invest in new molecule research in the country.

“The sector requires greater incentives to enable it to have access to the capital it needs to drive its development. For example, co-investment schemes could be developed to finance clinical studies that are required to comply with the regulations in some of the markets that Mexican companies might export to,” Uribe concludes.
MEXICAN MEDICINE FOR THE GLOBAL MARKET

For 40 years the Neolpharma Group has been dedicated to manufacturing medications up to the highest global quality standards.

BY ANTONIO VÁZQUEZ
Grupo Neolpharma, a Mexican company devoted to the production of medications, today enjoys global success, with an international market share of up to 20%, according to Efrén Ocampo Gutiérrez de Velasco, president and CEO of Neolpharma.

The company has a significant presence in the international market, says Ocampo, with a portfolio of 198 registered products and more than 300 presentations focused on: neurosciences, oncology, analgesics, antibiotics, cardiovascular, dermatology, endocrinology, gastroenterology, pneumology, rheumatology, vitamins, hormones and gynecology.

With a presence in the United States and Puerto Rico, Neolpharma wouldn’t be where it is today had it not been for the determination of the group of doctors who initiated the project.

“This group was formed to supply neuro-psychiatric drugs that were scarce in the country during the 1970s. Thus was Psicofarma born, with useful medications for psychiatry in Mexico,” says Ocampo.

In 1994, the company began its transformation with production shifting from maquila operations to the creation of its own broad range of medications, and now has its own manufacturing centers.

“Neolpharma’s laboratory network focuses first on the development of new drugs, second on research and third on the evaluation of therapeutic benefits,” explains Ocampo.

State-of-the-art technology and use of the best active ingredients in the manufacture of medications are production basics for the Neolpharma Group. The company has a research and innovation center and collaborates with the National Autonomous University of Mexico (UNAM) and the Center for Research and Advanced Studies (Cinvestav) of the National Polytechnic Institute (IPN).

“We’re in a country where health regulations require us to have high quality standards. At the moment, we have a share of between 15% and 20% in the foreign market,” explains Ocampo.

“We have a working group on export strategies. Once this group identifies the markets, we can see the possibilities for export or who our partners may be there. We’re on almost every continent, but mainly Latin America, from Mexico to Central and South America,” says the president and CEO of Neolpharma, a company that employs 2,800 people.

Accelerated Growth
According to Efrén Ocampo, Neolpharma Group has seen double-digit growth in the last 10 years.

Much of this growth has been made possible by the various international trade agreements that Mexico has signed with other nations and regions of the world.

“We’re currently investing nearly 50 million USD in a plant that will produce sterile, injectable or parenteral medicines in order to renew other target markets,” says Efrén Ocampo.

This plant, due to begin producing specialized medications in 2019, will be essential for the Neolpharma Group to reach markets in Europe and the United States.

Efrén Ocampo recognizes that the support of ProMéxico has been fundamental for the expansion of the company. “ProMéxico has supported us at big international fairs attended by the top players in the international pharmaceutical industry. We’ve had their support making direct connections with our trading partners in other countries,” he concludes.

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MEDIX: FOCUSED AND MULTIDISCIPLINARY

In the treatment of obesity and overweight, Medix is flexing its muscles. Crucial to the process are its more than six years of experience and development of innovative tools.

The market for Medix keeps on growing. The Mexican corporation serves the obese and overweight populations of Mexico, Central America and parts of South America, and figures show that the number of new patients is on the rise.

The Intermediate National Survey for Health and Nutrition 2016 conducted by the National Institute of Public Health (INSP), confirmed that seven of ten adults in Mexico are overweight. Also notable among the survey’s findings is an upturn in overweight men and women as compared with the results of 2012, particularly in rural areas.

Medix’s business model offers comprehensive solutions to the problem. For one, the firm—owner of Dialicels extended-release technology—develops, produces, manufactures and markets medications for obesity, overweight and associated illnesses, gastroenterology and feminine health. For another, it’s employed various strategies to maintain a permanent presence in the markets and among doctors and health institutions.

Key to those strategies are the National Campaign Against Obesity and Overweight, the Latin American Institute for Overweight and Obesity (ILSO), the Ciento Ochenta Grados ‘bodily perfection’ clinics and the Center for Pharmaceutical Research and Development (CIDEfarma).

During the campaign, nutritionists and endocrinologists visited work centers in the country’s main cities to provide personal check-ups and prescribe treatment. ILSO designs continuing education programs for health professionals specializing in obesity and overweight; Ciento Ochenta Grados provides cosmetic services for men and women by means of frequency and laser devices. CIDEfarma oversees the implementation of pharmacological studies, many related to the search for new forms of medication release to enhance the effectiveness and adhesion of treatments.

“This has enabled us to go much deeper rather than doing simplistic analyses,” says Carlos López Patán, general manager of Medix. “We’ve realized that obesity and overweight strike on a person-by-person basis, that treatment can differ and that the reasons for losing weight are quite varied; and also that the emotional component plays a major role,” he adds.

Medix has a 62-year track record as a specialist in the field. In 1956, when the lab first set its sights on the illness, obesity was still seen as an affectation limited to questions of personal appearance. Over time it began to be seen as a public health issue that touched on many other aspects of social life. Tracking this evolution closely has been fruitful for Medix whose domestic market share has risen from 20% in 2012 to 50%, according to López. The firm has registered 800,000 check-ups, 300,000 patients and half a million kilos lost.

We’re now looking at a company that is flexing its muscles, with a comprehensive model for the domestic market and suitable solutions for other regions where the problem is on the rise. López says the first substantial phase of export to Central America was in the 1980s. With time that model had to be adjusted, and in 2018 the firm returned to the region with a new distribution strategy.

In Central America the firm has engaged solely in training physicians and marketing pharmaceuticals. According to López, Medix has a 50% market share in the region. The company has also taken gradual but firm strides into Paraguay and Argentina and ventured into the US market as a provider of supplements.
“Our intent is to consolidate our presence in Central and South America, and, once we’ve seen positive results that constitute significant revenue for the company, go to other continents,” says López.

**Members and Allies: Key to the Model**

“The Medix model is only viable where it is associated with institutions, researchers, companies and schools, because Medix may have limited expertise in the tools required for the treatment of obesity: digital tools, electronic devices, bariatrics, psychology; experts in sports, nutritionists, doctors,” López explains.

Among the company’s research allies is the National Council for Science and Technology (Conacyt), an institution with which Medix undertook a study in 2016 to measure the impact of the active ingredients present in the obesity-fighting pharmacology available in Mexico.

The three-year study –due to conclude in 2019– had the participation of the national institutes of respiratory illnesses and genomic medicine. The analysis, developed on the basis of broad population samples in Mexico, will provide data on the efficacy of anti-obesity treatments for a specific population where genomic and pharmacological variables intersect.

Previously Medix and Conacyt undertook studies to find several advanced forms of medication release.

**Personalization Is the Future**

The treatment of obesity and overweight is not divorced from current therapeutic trends in other fields, of which the personalization of solutions for individuals holds particular weight.

To that end, says López, data analysis that enables greater precision for each individual case will be crucial. “We’re at the stage of developing different tools for data analysis, as well as the use of artificial intelligence. In the future we’ll be able to use these to enhance diagnoses and the prescription of adequate treatment, as patients are profiled and the effectiveness of reductive treatments is analyzed,” he says.

Along the same road, Medix seeks to expand its offering of solutions for the prescription and treatment of obesity-related illnesses.

LIOMONT, GUNG HO ABOUT BIOTECH DRUGS

Liomont has upped its game in the biotech drug race. This Mexican lab entered the playing field in 2014 with the creation of its Life Sciences division —then managed by Sergio Valentinotti— and the acquisition of a license to distribute the Flublok vaccine in Mexico. The company is now a serious player and is working on new biosimilar monoclonal antibodies. So far ahead is it in the race that Liomont has decided to build a new plant for the production of these drugs.

An Upward Hike
According to Sergio Valentinotti, it was always Liomont’s intention to gradually ease into the biotech market. The first, relatively low-risk step was to distribute the Flublok flu vaccine —genetically engineered in the United States by Protein Sciences— in Mexico. One year after signing a distribution and technology transfer agreement with its United States counterpart (2014), Liomont focused on getting the vaccine approved by Mexican authorities so that by the time winter 2016 came around, the first 50,000 doses could be administered as a finished product imported directly from Protein Sciences labs.

Flublok, formulated with recombinant hemagglutinins for the A (H1N1 and H3N2) and B strains of the influenza virus, is recommended for people over 18. It has been distributed by Liomont for the last two years and is the subject of a clinical study, “the largest Liomont has ever conducted, to demonstrate that the vaccine is safe and effective on children aged three to 17,” says Valentinotti.

In conducting the study, the lab has had to work closely with two public health institutions responsible for administering vaccinations and evaluating research protocols, as well as clinical research centers throughout the country and contract research organizations (CROs), whose task is to recruit patients, oversee the use of good practices, record clinical data and compile statistics.

“The study is being conducted in Mexico, but will be used by other regulatory agencies,” says Valentinotti, adding that it complies with “the most stringent standards.”

After two test periods —winter 2017-2018 and 2018-2019—, the lab calculates it will have a version of the Flublok vaccine apt for children aged three and upwards ready for the 2019-2020 winter season.

Concomitantly, the company’s Life Sciences division is collaborating in the Phase I and III clinical studies for two monoclonal antibodies. These studies are conducted by a third party following the United States’ FDA and Europe’s EMA requirements. Once these studies have been completed, the lab will register the molecules in Mexico and transfer the technology to its specialized plant.

Another project is the development of a monoclonal antibody on which Liomont is working with the Biotechnology Institute of the National Autonomous University of Mexico (UNAM). “This,” says Valentinotti, “is being conducted in compliance with international guidelines, which means we will be able to distribute the product developed in Mexico in any country in the world.”

Liomont expects to be transferring this technology to its facilities by year-end and will proceed to produce clinical batches that demonstrate the drug is safe and effective.

“These are drugs designed to treat mainly chronic illnesses and that are changing the medication paradigm. Liomont has chosen a good time to embrace biotech because not only will it be
producing these first drugs, but it will have the infrastructure to market a good many of them,” says Valentinotti, who acknowledges that Mexico’s pharma ecosystem is suited to projects of this kind, because it has a solid regulatory framework and a pool of specific suppliers to execute them.

This, he says, is the ideal moment for Liomont to get a foothold in the sector and position itself at the forefront of the industry, so it can start seeking out international markets, especially for its monoclonal antibody. These four years of apprenticeship in the biotech industry have enabled the company’s Life Science division to hire specialized human capital, implement industry-specific processes and build a functional value chain.

This preliminary period has also given Liomont the chance to fine tune its approach to the domestic market, which is important given that its products come with a high price tag due to the costs associated with research, development, clinical studies and production. In the case of its new biosimilar drugs, the company plans to introduce them to the Mexican market via the health sector’s consolidated purchases program during an initial phase.

The health authorities are attempting to bring the cost of these medicines down by gradually substituting the original ones whose patents have expired with new biosimilar ones of proven quality, so more patients can have access to treatments based on biotech drugs. According to Valentinotti, this opens the door to companies like Liomont, who are new to the biotech industry, but that have a proven pharma track record.

Liomont has been distributing its chemical-based drugs via both private and public channels for 80 years now. The company’s first plant, located in the Cuajimalpa district of Mexico City, has an installed capacity of 120 million units of oral solids and liquids, injectable solutions, creams, powders and suppositories.

In addition to ISO 9001:2015, Clean Industry, Great Place to Work and H certifications, its products have been approved by the health regulatory bodies of several countries, including Mexico’s Federal Commission for the Protection Against Sanitary Risks (Cofepris), the US Food and Drug Administration (FDA), the European Medicines Agency (EMA), Colombia’s National Institute for Food and Drug Oversight (Invima), and Peru’s General Office for Medicines, Inputs and Drugs (Digemid), among others.
ZURICH PHARMA:
AN ALLY IN THE FIGHT
AGAINST CANCER

Having suppliers of quality medications at competitive costs is essential for the health sector, especially when dealing with treatments for chronic degenerative illnesses such as cancer. Zurich Pharma plays an extremely important role in this field.

BY OMAR MAGAÑA

Liposomal medications and others based on advances in biotechnology are crucially relevant in the treatment of a broad range of cancer types. In Mexico, the laboratory Zurich Pharma has focused on the production, registration and marketing of molecules for oncology, ensuring that they are effective and the products are affordable for its biggest buyer: the health sector.

“When the laboratory was founded, the pharmaceutical industry was examined and ongoing needs on the part of oncology detected. There were actually few laboratories with generic medications, and prices were not appropriate for giving this type of treatments,” Omar Álvarez Moscoso, commercial director at Zurich Pharma, points out.

With that diagnosis, the firm was established in 2004 as a company with highly specialized products. In 2007, it set up its oncology plant and got its sanitation license; in 2009, approval for 14 product registrations was received. Since then, Zurich Pharma has stood out for its aggressive investment program in the field of nanotechnology, particularly, for manufacturing liposomes at its plant in Tepeji del Río, Hidalgo (central Mexico), Álvarez states. “We’ve been operating the liposome plant for seven years, and what we want is to create differentiated products so as to give patients quality products at a lower price.”

According to specialized publications such as New Medical and Ebízor, liposomes are spherical microscopic vesicles, 20 to 30 nanometers in diameter, made from cellular membrane and used as successful vehicles in the administration of drugs to fight cancer and other illnesses. Liposomes stay in the bloodstream longer and accumulate at pathological sites, which leads to greater efficacy and less systemic toxicity.

An example of this type of developments is the liposomal doxorubicin hydrochloride that Zurich Pharma marketed in the country as Zuclodox. According to experts, the first liposomal formulation of doxorubicin revolutionized the pharmaceutical sphere once its registration was approved, 20 years ago, and since then it has been widely used for cancer treatment.

“We have about 55 products specifically for cancer,” Álvarez informs. Besides liposomal doxorubicin, the Zurich Pharma portfolio has specific action medications such as vinorelbine, useful in the treatment of lung cancer with sizable cells and breast cancer; bortezomib, an antineoplastic agent that attacks malignant cells, and amifostine, that coats tissues to protect against the effects of chemotherapy and radiation.

Cancer in Mexico
The latest report on the prevalence of cancer among the Mexican population, published by the National Institute of Statistics and Geography (Inegi) in February 2018, indicates that every year from 2011 to 2016, two out of every 100,000 inhabitants in Mexico died due to a tumor in hematopoietic organs; three out of every 10 deaths from cancer in the 30 - 59
The company is now a serious player and is working on new biosimilar projects and its own monoclonal antibody.

The company is now a serious player and is working on new biosimilar projects and its own monoclonal antibody.

age group were due to cancer of digestive organs. With respect to breast cancer, in 2016, 16 deaths were recorded for every 100,000 women 20 and older.

As they deal with illnesses whose treatment is long and continuous, Mexican laboratories like Zurich Pharma have concentrated on offering value through effective solutions at a lower price, in view of the fact that they are based on generic formulations and, in recent years, on biocomparable ones.

“The science of medications is moving toward biotechnology. That is the revolution we are undergoing, because they are much more efficient medications to counteract this type of ailments,” Álvarez explains.

He also informs that in 2017, Zurich Pharma developed a biotechnology plant at its Tepeji del Río complex, thereby incorporating experts devoted to molecule characterization, product development and clinical test launchings.

According to the commercial director, Mexico has an extensive field of action for developing biotechnology-based medicine, in addition to the commercial opportunities that laboratories find in the standardization models promoted by the country’s regulatory authorities. Regarding that, he points out that: “The Federal Commission for Protection against Health Risks (Cofepris) has made numerous modifications that have resulted in laboratories being much more efficient and efficacious in manufacturing medications. Laboratories, like ours, that are regulated get lots of opportunities to be able to compete with medications abroad.”

Making the most of this traction, for the past three years, Zurich Pharma has activated a focused export plan, mainly in the Central and South America markets, where Cofepris regional standardization weighs in heavily.

“Being (Zurich Pharma’s drugs) highly specialized products, we have numerous opportunities; well, in Central America and elsewhere in the world, there’s nobody that does what we do,” Álvarez underscores. To make the most of this potential, the company takes part in the CPhI Worldwide, the pharmaceutical sector’s largest international fair.

“We believe in the country and in the opportunities that are being produced,” Omar Álvarez Moscoso concludes. Company shareholders, he assures, realize that taking part in this field means constantly reinvesting the profits, since: “Investment is at the heart of the company” and financial results are long range.
Sanfer, one of the leading firms in Mexico’s pharmaceutical sector, has been able to satisfy new markets by continuing on its course of optimizing its potential through the vertical integration of related lines. This is what the company has been doing since the 1960s.

It’s also the prevailing dynamic for Grupo INVEKRA, the holding company that handles Sanfer, Sanfer Salud Animal, Aerobal, Bussie, Corex, Dinafarma, Grimann, Hormona, Litogrimann, More Pharma and Pharmadorf—most of whom are involved in the production of raw materials for the pharma sector, manufacture of the end product, distribution of medications and lab services.

Sanfer, the longest-running of the group, acquired Grupo IDISA in 2016, thus becoming “one of the five largest companies in the country, while strengthening ties to companies like Sanofi and Boehringer Ingelheim and substantially boosting the company’s exports,” according to Gabriela Espinosa López, commercial director of Sanfer Salud Animal.

With this purchase, Sanfer Salud Animal took control of four companies with perfect profiles and a high degree of specialization in the livestock sector: IASA, focused on the research, development and marketing of products and biotechnology for the identification, prevention and solution of animal health and nutrition problems; Nutek, specialized in technological research and
chemical control of mycotoxins; Alpes, focused on the development of specific pathogen-free fowl for the manufacture of human and veterinary vaccines; and IMSA, capable of producing up to 21 million chicks per year through the incubation of fertile eggs.

“The acquisition of this group (...) represents a more than tenfold growth in the animal health sector for Sanfer,” says Espinosa.

The company had gone into this field with solutions for combating such diseases as classical swine fever, bovine paralytic rabies and infectious coryza, in both Mexico and Central America. On the basis of the recent acquisitions Sanfer is consolidating a huge portfolio and extending its markets to North America, several countries in Africa, and Asia. “In general, we can say that 30% of our sales are in the international market,” says Espinosa.

Sanfer Salud Animal’s new products include mainly biological, and mycotoxin detoxifiers for poultry and swine.

“As we see it, we don’t sell products but solutions, developed in coordination with our clients to offer integrated management programs with services provided by our two diagnostic laboratories specialized in the livestock industry,” explains Espinosa.

The above is rounded off by the company’s investments in research and development, activities that involve research centers belonging to the National Polytechnic Institute (IPN), the National Autonomous University of Mexico (UNAM), in Mexico, and Cornell University, the University of Delaware, the St. Jude Children’s Research Hospital and the Georgia Poultry Laboratory Network, in the United States.

Connecting Mexico to the World
According to Gabriela Espinosa López, the Mexican market remains key to the company’s business, at the same time it complements the needs of overseas markets.

Mexico’s livestock sector—in particular—as well as its poultry operations enable Sanfer Salud Animal to design and develop new products, test their effectiveness, and respond to new client needs. A positive development for the company has been to discover that the overseas markets it handles share conditions similar to Mexico’s, which facilitates the introduction of its products into these economies.

“We’ve been paying attention to constantly growing and developing markets such as those in Asia, Africa and the Middle East. As their animal populations have grown continually, we’ve been able to capitalize and respond quickly to the demand these countries have for high-quality products at competitive prices,” says Espinosa.

In the reverse direction, Sanfer Salud Animal’s presence in the global market provides relevant information to the company on the trends, preferences and changes going on elsewhere, mainly in terms of the regulatory panorama and use of medications, which can later lead to innovations aimed at compliance with current quality standards.

With regard to the above, Espinosa’s view is that the Mexican market related to the breeding and maintenance of animals for industrial uses is always in tune with what goes on outside Mexico; fields such as biosecurity, animal welfare and food chain sustainability have thus gained momentum. Sanfer Salud Animal has specific solutions for these issues, from products to lab services in the area of molecular biology and analytical chemistry.

What does the future hold for Sanfer Salud Animal? As its director tells us: “Our objectives are clear. We want to provide solutions to our clients to enable them to increase their productive performance, backed by a highly specialized technical and sales team via a dedicated distribution network. Also, to provide those in charge of production and animal health with high-quality, cost-effective alternatives designed to treat and prevent the most common and highest impact diseases, while safeguarding animal welfare and food safety.”

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MEXICO, RESEARCH OPTION FOR ELI LILLY

The transnational lab, as it is ordinarily perceived, is located in a country that has top-notch medical specialists and infrastructure to facilitate clinical research

BY SANDRA AGUILAR

Mexico bears the profile of a major world research center, according to Mónica Julieta Salas and Sandra Patricia Acosta, the clinical operations manager and site engagement manager, respectively, of Eli Lilly Mexico, a firm with a worldwide presence.

As these company staffers tell it, the country boasts numerous high-level researchers specializing in specific health areas; public and private institutes with suitable infrastructure; state-of-the-art imaging labs; and – though there’s room for improvement in this area – a highly rated regulatory framework for the sector.

The same could be said of the ethics committees charged with controlling research as it is initiated and conducted – all on human beings – as well as protocol review. “We’re up to the level of any advanced research center in the world,” Acosta says.

Eli Lilly practices what it preaches in Mexico, covering an important area of clinical research and coordinating clinical studies upon which the registration of new products in both the United States and Mexico is based.

These involve protocols to obtain information about molecules or precursors of medications that are more evolved than the ones we’re now familiar with. Research in this country entails monitoring to test new molecules and their effectiveness.

Eli Lilly’s relationship with Mexico is nothing new; the firm shares a long and prosperous history with the country.

Of primary importance is that the company has almost a century and a half of clinical research experience. Founded on May 10, 1876, in the city of Indianapolis, Lilly released the world’s first insulin product in 1923, granting diabetes patients an option to improve their health.

These products reached Mexico in 1908, a couple of years before the outbreak of the Mexican Revolution, and they were distributed by one of the main pharmacy chains, run by the Sanborn brothers.

In 1919 the pharmaceutical firm began shipping its products to Mexico as some of its earliest representatives arrived. By the end of the 1920s, the lab brought insulin to the Mexican market for the first time, when it was the only alternative for Mexican patients with diabetes. In 1956 it inaugurated a manufacturing plant in Mexico City. These installations are now headquarters for Eli Lilly and its animal health division, Elanco.

As of 2018, Lilly has no manufacturing plants in Mexico, though since 2011 it has maintained an alliance with Boehringer Ingelheim, with whom it produces, packages and distributes certain medications for the treatment of diabetes.

Thus Mexico has benefited from this company’s scientific developments for almost a century, which is no small thing.

In the 1940s, Eli Lilly was one of the first firms to develop a method for the mass production of penicillin, making the formula accessible to thousands. In 1955, the lab perfected the process for the mass production of polio vaccine, based on the method developed by Doctor Jonas Salk, and thus became the first pharmaceutical company to produce and distribute the Salk vaccine. Around 1960, it launched its first medication against several kinds of cancer – it had been seeking alternatives to combat the illness for the previous four decades. At the start of the 1980s, it introduced
the world's first biotechnological product for diabetes care, for which it utilized recombinant DNA technology to create biosynthetic insulin. At the end of that decade Eli Lilly released Prozac for the treatment of depression, thus ushering in a new phase in the care of mental illnesses. In 1996, it brought out a new treatment against pancreatic and lung cancer.


Currently, Mexico is an important base for the development of new Eli Lilly products. According to Julieta Salas, the firm is conducting 25 clinical studies with 16 different molecules in the country, about 1,300 patients are participating in these trials. A country's ability to carry out clinical studies depends on various factors, she adds. For example, patients with the illness under study must be available, as well as research sites with suitable infrastructure and clinical researchers with proven skills. Still more important are the country's current regulations: as human subjects are involved, clinical research must be regulated.

Year after year the Comisión Federal para la Protección contra Riesgos Sanitarios (Federal Commission for Sanitary Risk Protection, Cofepris) has remained open to information and proposals from pharmaceutical companies on clinical studies in Mexico.

According to the protocols, patients must be protected at all times, as stipulated in the Ley General de Salud (General Health Law).

At the moment some 130 researchers are working on clinical studies at 210 sites in Mexico. The required investment for some of these studies has reached as much as 2.5 million USD, according to Sandra Acosta.

A country that accommodates clinical research can count on the generation of direct and indirect jobs and knowledge transfer.

The Eli Lilly staffers say that in Mexico’s case clinical research affords patients access to innovative medical therapies that they wouldn’t have under the usual social security system. These therapies can extend their lifespan or improve their quality of life.

To the specialists involved, clinical research is a key component of scientific discussion at the international level and it enhances their expertise on the molecules under analysis.

Everything suggests that Mexico, owing to its features, will be the host country for new clinical studies by Eli Lilly. The company is now working, together with the government and regulatory branches as well as other pharmaceutical firms, on an initiative to improve research processes and make Mexico more competitive in the field.

The firm is preparing 20 new molecules due for release in the country sometime between 2024 and 2025.
ILS Clinical Research, a prestigious firm that researches new treatments for human ailments, has been operating in Mexico for three years and is now seeking to expand to Brazil.

BY ANTONIO VÁZQUEZ

Mexico is the second-largest pharmaceutical market in Latin America—surpassed only by Brazil—and the 12th worldwide. According to Alejandro Arias, CEO of ILS Clinical Research, this makes clinical research of vital importance to the country.

“Mexico is recognized worldwide for its many competitive advantages and we need to use these to attract more clinical research. Also, it is always recommendable to analyze specific treatments and provide relevant pharmacovigilance and efficacy data to determine whether or not a new drug is viable for registration,” says Arias.

ILS Clinical Research has 18 years’ experience in clinical research. In 2015, it began operating in Mexico and currently has a presence in other Latin American countries like Argentina, Colombia and Peru. Now it has its sights set on Brazil.

Arias believes Mexico is ideally positioned to conduct clinical research because it has professionals who have research experience with a broad range of pharmaceutical companies and opinion leaders in the medical sector who participate in national and international research projects. It is also close to the United States and its Federal Commission for the Protection Against Sanitary Risks (Cofepris) is a globally recognized regulatory agency, while access to patients and higher-than-average results in therapeutic areas like endocrinology, oncology, infectious diseases and women’s health complete the package.

“Also, proximity to Central America enables us to conduct research projects that encompass different countries, with Mexico acting as an operations hub,” adds Arias.

According to the company’s 2018 report, Mexico’s pharmaceutical market is valued at approximately 10 billion USD. The same report states that Mexico has highly specialized doctors, many of whom have studied in the United States and Europe.

ILS Clinical Research is a full-service contract research organization (CRO), which means it is equipped to take on clinical research projects from start to finish, from the design, conducting and monitoring to the closing and final report stages.

The company renders services like medical writing, regulatory submissions, imports, the creation of digital databases, clinical monitoring, statistics and final reports, and assists with the registration of new drugs with Cofepris.

Worldwide, it has clients of the stature of Roche, Sanofi, Boehringer Ingelheim, AZ and Grunenthal, to mention just a few.

“One of the goals of ILS Clinical Research is to repeat business with its clients, something we have achieved over time, because the team objective is to complete each project on time and in compliance with the highest quality standards, with the focus always on metrics,” says Arias.

ILS Clinical Research is a member of the Association of Contract Research Organizations with Operations in Mexico (ACROM), a CRO association created to promote clinical research in the country. According to Arias, belonging to this organization has enabled ILS to make direct contact with other clinical research actors in Mexico and participate in debates and decision-making processes in the Mexican industry.
“ILS Clinical Research has and will always be an ambassador of the industry in Mexico and beyond its borders. The fact that Mexico has recognized the pharmaceutical industry as a strategic sector gives us an edge because it will lead to an increase in the number of research projects conducted here. ILS Clinical Research will continue to contribute to this growth with its experience and research findings. Part of our mission is to contribute to the development of alternative treatments for our patients in Mexico and, potentially, in Latin America,” says Arias, who believes clinical research has a promising future in Mexico.

“We need to continue working together, train more professionals and create teams and alliances that will make us even stronger and position us more strategically on the international arena,” he says.

Under such a scenario, Arias sees ILS expanding slowly but surely. “We will continue to promote Mexico as a clinical research alternative among pharmaceutical companies in the United States and Canada, based on the high standard and competitive advantages the industry has to offer.”

WWW.ILSCLINICALRESEARCH.COM
UDIBI: COMPETING FROM THE SEEDBED OF SCIENCE

Scientists in Mexico have an enormous opportunity to innovate if they are willing to turn their research centers into competitive startups, according to Dr. Sonya Mayra Pérez, executive director of the National Polytechnic Institute’s Unit of Development and Research in Bioprocesses.

This is the best time to discuss the work of the Unit of Development and Research in Bioprocesses (UDIBI), a laboratory within the National School of Biological Sciences at the National Polytechnic Institute (IPN).

Specialized in preclinical, clinical and biocomparability studies, the laboratory is perfecting a model for the creation of technologically and scientifically based startups that is new in Mexico. This model promotes transforming scientific research entities housed in academic centers into financially independent production units devoted to discovering and developing innovative molecules that eventually lead to interesting products for the pharmaceutical, medical devices, dietary and environmental industries.

As happens in the world of startups, such production units would begin generating value once a successful product or technology is perfected and then presented to investors willing to inject capital.

Dr. Sonya Mayra Pérez, UDIBI executive director, believes that this dynamic can stimulate innovation within the scientific community, promote biotechnology production in Mexico, and create a unique connection with capitalist partners seeking reliable scientific solutions that are adapted for marketing.

“We want to have a portfolio of products by the end of 2018 and go back to BIO (International Convention), together with ProMéxico, as the UDIBI we would like to be: with products to sell,” Pérez discloses.

The UDIBI would like its example to spread to other Mexican research teams. To that end, it must finish defining with academia to what extent it will continue to be governed by institutional statutes and how much margin of freedom it will have to manage its administration, introduction to the marketplace and relationship to investors, among other subjects.

“The major challenge is to turn into an IPN company, with independence, because industry, especially in the international arena, is more confident working with companies,” Pérez states.

Making Headway
UDIBI administrative self-management will be the final step of an intermediate model that the laboratory has been operating under since 2013, when it was certified by the Federal Commission for the Protection Against Sanitary Risks (Cofepris) as a third party authorized to offer industry such services as research, development, comparability tests and analyses for biotechnological pharmaceutical companies.

That same year, official Mexican norm NOM-177-SSA1-2013 was modified. It establishes tests and procedures for proving that a medication is interchangeable and the requirements for authorized third parties that carry out interchangeability and biocomparability tests.

“(For the UDIBI) that was the watershed for connecting with industry. Since those tests must be done by certain technically competent laboratories, industry turned toward us,” Mayra Pérez recalls. “We did the comparison of over 80% of domestically manufactured biotechnological medications that are currently on the market,” she adds.

This drew interest regarding these new participation models, among scientists and industry
throughout the Medical and Biotechnological Research, Development and Innovation Unit (UDIMEB), to which the UDIBI belongs, as well as two other divisions: the External Service and Clinical Research Unit (USEICO) and biotechnological medication developer PharmaFT. The entire UDIMEB operates as an IPN-linked entity but with financial self-sufficiency.

“The most extensive interaction with industry is at the UDIBI,” Pérez reveals.

**Creating Talent Adds Value**

Its Internet site specifies that the UDIBI offers its clients “reliable results with high added value due to the use of new methodologies, high technology, cutting-edge equipment, constant innovation and standardization, along with new analytical and immunological tests and high-quality personalized service.”

According to Pérez, of the entire UDIMEB, the UDIBI attracts human talent with the greatest academic training: of its 40 employees, 40% are science PhDs; 30% have master’s degrees in the sciences, and the rest come from related undergraduate fields.

She explains that the IPN company model facilitates optimizing existing scientific infrastructure to offer services that are differentiated by their quality and standardization. “Cutting-edge equipment is found in public educational, research and service institutions. Furthermore, Mexico’s institutions of higher education are the storehouses of the greatest knowledge in our country.”

For the UDIBI, this means a huge advantage in one sector—services for the pharmaceutical industry— with participation of companies from the United States, Europe and Asia that enjoy a long history, vast recognition and access to supply chains that enable them to optimize their costs and enjoy flexibility in terms of their prices.

Pérez points out that the UDIBI faces substantial challenges in terms of access and the price of consumables in Mexico—a country where biotechnology is incipient, but compared to its counterparts in developed countries, the UDIBI has the benefit of a labor and regulatory ecosystem that lets it maintain its competitive level.

The UDIBI currently has a promotion program backed by several channels: exhibition abroad through the services and backing of ProMéxico, collaborations with academic programs and international companies—among others, a study designed with MIT to develop optimal supply chains for service units in Mexico—and the future possibility of developing a laboratory in the United States.

For now, Pérez and her team will continue promoting biotechnology development in Mexico, forging alliances to improve supply chains in the country and calling on other science and technology centers to join in on the challenge of becoming reliable service units for pharmaceutical firms.

“In Mexico, attempts are being made to replicate these models. The National University (UNAM) has units that now have authorized third parties and provide service to industry. Other research centers, such as the Jalisco State Center for Research and Technology Assistance and Design (Cátedra), are doing their part, too. The major challenge here is to set up a quality management system and offer a service that gives industry analytical confidence and parameters with universal standards,” Pérez concludes.

**Specialized in preclinical, clinical and biocomparability studies, the laboratory is perfecting a model for the creation of technologically and scientifically based startups that is new in Mexico.**
MEDICAL DEVICES, A STEADILY GROWING INDUSTRY

Mexico has demonstrated its ability to manufacture high-tech products and it’s now poised to produce knowledge, according to the Baja California Cluster.

BY SANDRA ROBLES
The production of medical devices, primarily at Mexico’s northern border, started 28 years ago. During this period it's gained a level of experience matched by few other parts of the world.

That’s not all. Particularly in the northern part of the country there is suitable logistical infrastructure for exporting the medical devices that are produced in Mexico— such as in the city of Ensenada, which is beginning to compete with Long Beach, California, in this regard, according to the Baja California cluster treasurer.

Félix thinks that the progress made in the manufacture of medical devices is due to various factors: the continual communication between producers and local, state and federal governments, the connection between the industrial and educational sectors, and the integration of crews from different fields and cultural backgrounds at Mexican plants, whose staff may be comprised of different nationalities.

That said, improvements could be made to make Mexico’s medical devices still more prestigious and dependable. These include the incorporation of the most advanced high-tech processes, along with scientific research and appropriate development of human capital. “Until now the country has enjoyed success in demonstrating its skills in manufacturing processes. Now Mexico is ready to participate in the production of knowledge,” asserts Félix.

To this process must also be added the incorporation of more local companies to supply production chains.

In Miguel Ángel Félix’s opinion, the paperwork required by the Federal Commission for the Protection Against Sanitary Risks (Cofepris) has been streamlined – particularly following the signing of a collaboration agreement by which the position of a promotion sub-commissioner was created, enabling more direct communication between the sector and the authorities.

Miguel Ángel Félix is convinced that Mexico’s medical devices industry will keep growing and climb to the world’s top ranks within a few years. Its main advantage, he says, is an ability to manufacture a combination of simple and technologically advanced items.
BAJA CALIFORNIA: 
LATIN AMERICA’S LARGEST 
MEDICAL DEVICE MARKET

The medical device sector in Baja California has an annual growth rate of 8%, high above the national average.

BY CECILIA ROMERO*

With over 78 manufacturing companies that create more than 65,000 jobs, the medical device industry is one of the most important strategic sectors in Mexico, and especially Baja California.

The Industrial Association of Medical Products of the Californias—better known as the Medical Products Cluster—groups and coordinates companies related to the medical device industry in Baja California: 49 in Tijuana, 18 in Mexicali, eight in Tecate and three in Ensenada.

Some of these companies are recognized worldwide for their advanced manufacturing processes and very valuable medical products. Among them are Medtronic, Cardinal Health, Becton Dickinson, Fisher & Paykel, Baxter, Greatbatch, Smiths Medical, Welch Allyn, Intuitive Surgical, Icu Medical, Ossür and Merit Medical.

The products that are currently manufactured throughout Baja California range from syringes, catheters and hospital disposables to robots for surgeries, arm and leg prostheses and cardiovascular valves. In Baja California, Class I, II and III medical products are produced for different medical specialties: ophthalmology, respiratory, odontology, cardiovascular, gastroenterology, orthopedics, hospital, surgery and biotechnology.

Of the medical devices manufactured in the state, 93% is exported to the United States, 2.2% to Ireland and 1.5% to France. These exports are valued at nearly 9.4 billion USD, while sector imports are valued at close to 4.24 billion USD. In other words, the balance of trade in the industry in Baja California reflects a surplus.

Today, Mexico is the eighth exporter of medical devices globally; the third of needles and the fourth of syringes, catheters and cannulas.

In the next 30 years, significant growth is foreseen for the sector. Given the aging population, consumption of medical devices is expected to reach 834 million USD by 2020; in 2015, recorded consumption was 634 million USD.

The medical industry in Baja California is one of the most stable in the country. It is subject to the strictest regulations worldwide, and technology and knowledge are continuously being transferred and implemented, allowing companies in the state to offer cutting-edge technological products at a lower cost. Mexico represents 21.2% savings, compared with the United States, for manufacturing companies.
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The Medical Products Cluster works constantly with universities and research centers to develop human capital. Undergraduate degrees with specialties in the medical industry are currently available in the state, and it has post-graduate programs, workshops and courses for the continuing education sector.

Moreover, it is very important to consider that the state offers numerous benefits, among which are its privileged location – it has the most highly traveled border crossing in the world – and with ground and sea infrastructure development, crossing the Pacific puts the Asian market within reach.

The Medical Products Cluster maintains the synergy among the main groups that support industry ecosystem growth: medical device manufacturing companies (OEM), Contract Manufacturers (CMs), industry suppliers, universities, associations and government organisms.

We are getting ready for the growing demand and also for the implementation of advanced manufacturing, with 4.0 technology and the use of new resilient materials, enabling us to maintain our worldwide competitiveness and relevance.

*Director of the Medical Products Cluster.
MEXICO: STRATEGICALLY FOR BAXTER

Baxter has been in Mexico for 70 of its 85 years in business. During that time, it has maintained a continuous investment plan geared toward consolidating its leadership inside and outside of the country as a supplier of life-saving solutions.

The global market of medical devices grows as access to health services around the world expands, and Mexico satisfies part of that growing demand through Baxter, a leading American company in the field that has, for decades, relied on the country for production and export of its specialty products for the Americas.

The company is made up of six business areas —renal care (peritoneal dialysis, hemodialysis), parenteral nutrition, medication delivery (infusion pumps and intravenous solutions), pharmaceuticals (molecules and anesthetic products), advanced surgery (surgery glues and sedatives) and acute therapies (renal replacement therapies)—, and Mexico is involved in them as both producer of a major part of its solutions and consumer of the very same products.

“We have three manufacturing plants in the country: the largest, almost totally devoted to the production of solutions for peritoneal dialysis for intravenous infusion, is in Jiutepec, Morelos; another in Atlacomulco, Mexico State that produces for peritoneal dialysis and infusion sets, and one in Tijuana, Baja California, acquired in 2014 through Baxter’s global purchase of the Swedish company Gambro”, informs Piero Novello, general director of Baxter for Mexico, Central America, Puerto Rico and the Caribbean.

As a market, Mexico has an ongoing demand for renal care solutions, particularly for peritoneal dialysis. According to Novello, of the 100,000 individuals with renal disease in the country, 40,000 benefit from company products. Baxter plants in the country produce 80% of the units which cover the needs of this segment; the remaining are imported.

Export Node

Mexico plays a significant role in Baxter’s global expansion history. Together with Canada, it was among the first markets the company came to during the years of the Second World War, when it produced intravenous serums.

Mexico is now the region’s vertex. Puerto Rico, the Caribbean and Central America are serviced from here. Some of the Mexican production goes to supply Argentina, Brazil, Colombia, Chile and the United States.

Because of this, Baxter has a continuous investment plan at its manufacturing plants in central Mexico and the northern border. According to Novello, the unit in Morelos has received new injections of capital this year, aimed at expanding its production capacity. It is the same center that last year received the Ibero-American Award for Quality, affiliated with the Ibero-American Summit of Heads of State and Government, coordinated by the Ibero-American General Secretariat (Segib) and managed by the Ibero-American Foundation for Quality Management (Fundibeq).
Jiutepec, Morelos is proud to have what is now one of the largest and most modern Baxter plants worldwide, and it is certified by the US Food and Drug Administration (FDA).

“We constantly explore mechanisms to bring new technologies to Mexico from our global operations, and also share the extensive expertise we have developed here,” Novello ensures.

“Mexico offers several advantages for medical device production that go beyond manufacturing costs. There are also the experience and quality of human capital, and the fact that Mexican regulations are cutting edge and in line with the world’s largest markets: if a product complies with Mexican regulations, it can easily be sent to other markets in Latin America and other regions in the world. This is part of a global standardization trend among regulatory bodies, which seems natural if we consider that illnesses and patients are the same everywhere,” he adds.

In Mexico, Baxter employs 2,000 people for manufacturing and marketing activities, a figure which reaches 3,000 employees for the region. Mexico grows with Baxter, and the company grows with Mexico. The company, whose focus is on achieving sustained growth, remain a valuable asset for shareholders and provide advanced solutions for patients, sells in the vicinity of 10.6 billion USD a year and reported 5% growth in global sales at the close of 2017.

According to the financial report for the second quarter of 2018, Baxter had 2.8 billion USD of income, 1.2 of which was from sales in the United States and 1.6 from foreign trade.

“The growth axes in this quarter were the sales increase for pharmaceutical injectables, the strengthening of renal care solutions by the company and business related to therapies for acute illnesses, and also its solid performance with compounding contracts (injectable mixture for hospitals) and contract manufacturing business,” the firm’s 2Q 2018 performance report specifies.

According to Piero Novello, the company is looking at a positive horizon, given that the world population’s access to health services is opening up, which, in many cases, goes hand in hand with the use of medical devices, since they are the channel for administering medications.

www.baxter.com

“Mexico offers several advantages for medical device production that go beyond manufacturing costs. There are also the experience and quality of human capital, and the fact that Mexican regulations are cutting edge and in line with the world’s largest markets.”
FROM MEXICO TO THE WORLD: MEDICAL DEVICES THAT IMPROVE LIVES

With its specialized human capital and quality raw materials, Mexico is the preferred production place for Medtronic, one of the leading firms in the medical devices sector.

Mexico has great potential to attain world leadership in the medical devices sector, as well as to stimulate its internal market to use these items and improve people's quality of life, says Fernando Oliveros, general manager of Medtronic Mexico.

Right now, Oliveros says, the country holds eighth place in the production of medical devices. But the scene is set for it to climb higher in the ranks in the near future. “The infrastructure and skills are there. The conditions are right for the government to promote the industry,” he adds. As this exec sees it, the key is to diversify markets.

With origins in Minneapolis, Minnesota, Medtronic maintains its main financial center in Ireland and medical technology development labs in different cities in Europe and the United States.

In Mexico Medtronic employs nearly 12,000 people at four production plants—all nearby the northern border just a few miles from what is now its principal market, the United States: two of its factories are in Tijuana, Baja California, one in Ciudad Juárez, Chihuahua, and one in Empalme, Sonora.

From its Mexican base, this world leader in medical technologies produces stents, insulin pumps, pumps for pain-killers, heart valves, implants with specialized software, pacemakers and a broad range of high-tech products for orthopedic problems.

For this company, Mexico’s human capital is one of its chief advantages. “The skilled, competitive labor force is the number one reason that Medtronic is in this country,” says Fernando Oliveros. Another factor that has facilitated the firm’s operations in Mexico is the country’s strategic geopolitical location, as it is near the world’s...
In Mexico Medtronic employs nearly 12,000 people at four production plants—all nearby the northern border just a few miles from what is now its principal market, the United States: two of its factories are in Tijuana, Baja California, one in Ciudad Juárez, Chihuahua, and one in Empalme, Sonora.

In addition, Mexico has free-trade agreements that favor the export of products manufactured there and there’s been a renewed push on the part of its authorities for specialized production. “We are in co-development with local government and constantly interacting with the universities of northern Mexico to determine the career profiles of their graduates. Clusters have been generated with them and a lot of work is being done to build skills,” says Oliveros.

With regard to the production of medical devices, he adds, the Mexican manufacturing framework is quite successful, as there is great economic capacity and local supply chains of high-quality raw materials.

As a result, 95% of Medtronic’s Mexico production (stents, insulin pumps, enteral feeding tubes) is exported, mainly to the United States. “The aortic valves that Medtronic distributes all over the world are produced in Mexico. These accessories must pass the strictest regulations set down by the United States and the European Union,” says Oliveros, for whom the North American Free Trade Agreement (NAFTA) has been a real boon to the US firm.

Although the United States and Mexico are natural trading partners, Oliveros underlines the importance of exploring new markets. “We should turn to Europe and the Pacific and devote time to making ourselves more attractive to them,” he says.

The quality of its manufacturing and the possibilities that its internal market affords—128 million inhabitants—have given many transnational firms good reason to look toward Mexico today, but Medtronic had already set its sights on the country back in the late 1960s and established its first subsidiary there in 1970. Twenty-one years earlier the company had been founded in Minneapolis by Earl Bakken and Palmer Hermundshie as a repair shop for medical equipment. Not long afterward, the company developed its first device: the world’s first battery-powered, external pacemaker.

Today the firm maintains 12 business lines, among them cardiology devices (aortic valves, catheters, stents), insulin pumps and sensors for monitoring certain illnesses.

Fernando Oliveros explains that the company works with “ultra-specialized” personnel in Mexico, and, as is the case in other countries where the company is present, informational collaboration proves vital for the development of new devices. Generally, development of a new device arises from specific needs—sometimes on the initiative of Medtronic’s medical technology specialists and at other times due to the express needs of users. In the initial design stage of a new device, the scientists at a particular site share information with other world centers, with data obtained from places where the greatest number of patients have the problem.

Oliveros asserts that although its labor force remains one of Mexico’s main attractions, at the moment the country is increasingly better prepared to contribute innovation and develop materials and new devices.

“One of the most significant challenges is to transform Mexico into a platform for development for industry and, in tandem with the design of special public policies, to attract capital to invest in innovation and infrastructure development. Medtronic should set the standard for foreign investment and provide an ethical example for transparency, business and the way we relate to each other,” Oliveros says.

Medtronic’s work in Mexico had gone beyond medical technology. Since 2015, the company has proposed integrated health solutions along four axes: education and training of physicians to safely administer innovative therapies; funding to public and private institutions for technologically advanced infrastructure—such as equipment for the cath-lab of the Baja California Red Cross; initiation of innovative models for financing, so more health centers can have access to technology via performance payment and shared risks; and working toward a culture that takes a holistic view of illness and is based on prevention.

For now, the country has phenomenal export capacity that should be tapped. Medtronic is already doing that. “Better to go into the market sooner than later,” asserts the firm’s general manager for Mexico.

WWW.MEDTRONIC.COM
DIPROMEDIC: PEACE OF MIND FOR PATIENTS

Read on for some insight into the philosophy and approach of a Mexican company that is gradually elbowing its way past some of the most formidable players on the medical devices market.

BY OMAR MAGANA

Dipromedic has set itself a clear goal: to compete on the domestic and global markets for orthopedic implants with quality products.

According to Gisela Medina, head of the group’s international affairs and CEO of Biortotec, one of its subsidiaries, it was this quest for excellence that delayed the commercial launch of the osteosynthesis and trauma devices the company has been producing since 2016 in León, Guanajuato, and exporting since 2018.

“We wanted quality products because we saw, over and over again, the market being flooded with products from different manufacturers that weren’t of the quality our customers require,” she says.

In 2013, the company’s founder, Tirso Medina, and his team of collaborators sought certification for the processes and products to be produced at the plant that was already taking shape in the Bajío region. That year, the company was certified in ISO 9001 and ISO 13485 medical equipment standards. In 2014, it was certified under the European medical devices directive 93/42/CEE and in 2016, it passed compliance requirements for the Mexican standard NOM-241-SSA1-2012 pertaining to good medical devices manufacturing practices.

“That was when we were able to begin manufacturing our implants. They came to inspect our plant and we were certified to manufacture nationally,” says Medina.

In 2017, Dipromedic began putting together an export plan for its Mexican-made implants and in 2018, it opened an office in Peru to coordinate health registration procedures and sales efforts in the country.

A Flexible Business Model

In 2008, Dipromedic made an incursion into the medical devices sector as a sales representative of international brands in Mexico and it was with this market knowledge firmly under its belt that the managing team decided it was time for the company to try its hand at manufacturing its own osteosynthesis implants.

In 2009, it created the Biortotec business unit spearheaded by Gisela Medina. Initially, this unit focused on distributing specialty products, but in time it evolved into the department that follows up on regulatory and health registration procedures for the products manufactured by the group in León, the ones it continues to import and its first exports to Peru, in addition to prospecting other markets.

It was precisely a study of the medical implants ecosystem that revealed there was an opportunity to be had and that convinced the group
it was time to begin manufacturing its own products in Mexico. But it was to take several years for that to happen. First a site for the plant had to be chosen, regulatory procedures completed and its products launched on the market.

“We’ve gradually raised the capital without having to go outside the group. We believe in what the group does, in the business units we’ve created and the partners that work with us at all our offices,” says Medina.

As soon as Dipromedic began distributing its Mexican-made products, it experienced exponential growth. The company currently sells 2,000 codes on local and export markets. Some of these substitute products the group used to import; others are complemented with solutions by brands like Corentec and Konigsee from Korea and Germany, respectively.

This success has prompted the group to open sales and distribution offices in different cities in Mexico and its first office abroad in Peru, while its export plan provides for its expansion to five more countries that have yet to be revealed.

The company’s catalogue—of its own products and the ones made by the brands it represents—includes locked plates, intramedullary nails, joint replacements, external fixators, traditional osteosynthesis, instrument kits, power supply units and complements.

“We are exceedingly proud of our business model. It’s worked for us,” says Medina.

Based on the philosophy on which Tirso Medina founded the company, this model preaches taking one step at a time and exploiting every opportunity that comes along.

The domestic market for medical devices is very large, which makes it attractive to multinationals. For a Mexican company like Dipromedic, says Medina, “it was important to drive home the idea that expansion needed to be gradual and that we could not neglect the quality of our products for one moment, the level of innovation that goes into each solution, our proximity with the medical community or our capacity to develop a solid value chain within the group, reason why Biortotec has specialized in compliance with standards and certifications, and evaluating the products that are imported to meet the needs of the other companies in the group.”

“We set up a plant in León because this is a strategic location. Here we can exploit the supply chains that have sprung up in the area, especially in the metal-mechanical industry, which caters to the region’s large carmakers.” That said, there are still specialized supply gaps to be filled in titanium and medical-grade steel. In the meantime, Dipromedic imports its materials from different countries and conducts its own extensive quality tests and reviews at labs in Mexico to ensure these components are biocompatible and that they comply with international standards.

“We are dealing with human lives,” says Medina. “In this business, we all want to sleep easy—the patient, the doctor and the supplier—, reason why we insist on compliance with the regulations.”

Dipromedic is careful to maintain close relations with health professionals, not just as a loyalty strategy, but as a means of raising awareness of the quality principle that needs to prevail in the sector. It also trains new experts in implants and instruments, who, in turn, provide the group with valuable information on the sector’s needs so it can innovate and produce differentiated products.

**In 2017, Dipromedic began putting together an export plan for its Mexican-made implants and in 2018, it opened an office in Peru to coordinate health registration procedures and sales efforts in the country.**
SPECIAL FEATURE

MEDICAL SERVICES OF INTERNATIONAL STATURE

The state of Baja California, in northern Mexico, makes its mark as a global reference point for health tourism, with a two-digit growth rate.

BY ANTONIO VÁZQUEZ

Health tourism in Mexico’s northwestern state of Baja California, is growing noticeably: every year the state takes care of some 2.4 million foreigners who come to find health services and generate some 800 million USD in revenue.

“Annual growth of health tourism in the state averages between 10% and 12%,” reports Dr. Aarón Ureña Zaragoza, Health and Wellness Tourism Coordinator for the Ministry of Tourism of the Government of the State of Baja California.

Mexico holds second place globally (solely trailing Thailand) for domestic and international health tourism, which produces close to three billion USD of annual revenue in the country. This year, however, revenue is expected to surpass the 3.3 billion-USD mark.

According to Dr. Ureña, the major presence of health tourism is particularly noteworthy in the border zones of the country. And successful models stand out in the Riviera Maya, in the Mexican southeast, as well as in such northern states as Tamaulipas, Nuevo León and Chihuahua, and in Puerto Vallarta, Jalisco, in the west of the country.

As Dr. Ureña puts it, Tijuana is, hands down, the “Latin American capital” of health tourism. This city on the Mexico–United States border has highly trained doctors and high technology medical facilities that offer specialized treatments. “All medical personnel in Tijuana is certified,” Dr. Ureña declares.

Foreign patients who go to Tijuana are mostly from the United States and Canada; According to data from the Baja California state government, 44% of these patients come from California and 27% from Arizona. Tijuana also serves a major segment of domestic medical tourism, which originates in states like Jalisco, Sinaloa, Nuevo León and Sonora, as well as Mexico City.

Dental treatments, plastic and bariatric surgeries, assisted fertility, orthopedics, arthroscopy, eye surgery, cardiology interventions and hip and knee replacements are the main specialties that draw international tourism to Tijuana, while domestic tourism, goes there for specialties such as eye surgery, orthopedics, assisted fertility and plastic surgery, among others.

According to Dr. Ureña, Baja California has a medical policy that backs the sector financially and joins forces with the state Ministry of Tourism. And, as Dr. Ureña explains, the health tourism value chain in Baja California starts the moment trained personnel pick the patient up, take him to the city and then to the hospital of choice. For patients’ family members, the trip to Tijuana can include visits to tourist attractions such as the Wine Route in Valle de Guadalupe and well-known restaurants serving the best cuisine in the region. “Gastronomy in Tijuana is among the top in the country. What’s more, visitors can make the most of cultural centers and
As Ureña puts it, Tijuana is, hands down, the “Latin American capital” of health tourism. This city on the Mexico–United States border has highly trained doctors and high technology medical facilities that offer specialized treatments.

shopping centers, while side trips along the Wine Route or to nearby places to swim always appeal.”

“From the western portion of Tijuana to Ensenada we have several beaches, where people enjoy strolling on the sand, surfing and fishing. And we are near the state that is considered the eighth economy worldwide, as well as a health tourism exporter: California,” he adds.

Baja California’s Health Tourism Board works together with federal authorities and medical schools in the state to offer patients and their family members the best service.

Plus, in comparison with the United States, the cost of medical treatments available in Tijuana is very attractive. Average savings for medical care in the border city reach as high as 80%, and as far as the cost of medications, the percentage of savings is similar.

The alliance with ProMéxico has been important in sparking health tourism in Baja California. Thanks to this synergy, the medical forum Bajas Health and Wellness was held in 2017, with the participation of the best in international health tourism.

Dr. Ureña considers the future of medical tourism in Mexico to be promising, concluding: “In Baja California, we are pioneers and leaders in health and welfare in Mexico. The health tourism we have here can be replicated in other areas of the country, and we are happy to share the experience of so many years.”
MEDICAL TRAVEL UNDER THE SUN
STEPPING FORWARD

This medical cluster located in the Mexican Caribbean is shaping up as one of the most attractive health tourism options in Mexico, drawing tourists from the United States, Canada and Belize.

BY ANTONIO VÁZQUEZ

Though still in its early stages, Mexico’s health tourism sector is moving in the right direction, says Servando Acuña Braun, president of Medical Travel Under the Sun. This cluster is comprised of a group of private hospitals and clinics in and around Cancún, Playa del Carmen and Cozumel—the Mexican Caribbean.

One of the great strides taken by health tourism in Mexico is to forge direct links to foreign patients, thus eliminating the middlemen. This will grant visitors direct access to the high-quality medical treatments and specialties being offered in this southern region.

“What matters most is that Mexico is taking strategic, healthy steps to bypass the intermediaries, instead offering the possibility to form relationships between hospitals and employers. The big market isn’t those who are insured or underinsured, but all of those people who work for companies that don’t subscribe to insurance services and instead offer their patients medical services as a direct benefit,” says Acuña.

Besides Cancún, another Mexican Caribbean destination primed to become a cornerstone of health tourism is Cozumel. The sector there has grown at a rate of 8% to 10% annually in the past few years.

“We’re pleased with this. We’re moving forward to eliminate the middleman, and another great achievement that’s come at great cost has been to position Mexico, and mainly the Caribbean, as a health destination in the United States,” says Acuña. “A large share of this effort falls to federal and state authorities. It’s important to direct investment to specific regional blocs based on an analysis of their needs,” he adds.

In this regard, as the border city of Tijuana in Baja California can be aimed at patients in California and Oregon; Puerto Vallarta, in Jalisco, could be promoted in cities in the United States that have daily flights to the port; while Arizona and Texas can be a big market for northern states like Nuevo León and Chihuahua. For its part, the Riviera Maya might best focus on the market in such states as Florida and Georgia and along the corridor that stretches from the US capital, Washington, DC, to Philadelphia.

“So a robust campaign needs to be carried out, a huge investment to attract American patients. Right now perceptions have been formed by word of mouth, especially by all the customers who’ve come down and been pleased,” says Acuña, who estimates that health tourism can attract 5 million visitors per year to Mexico.
“What matters most is that Mexico is taking strategic, healthy steps to bypass the intermediaries, instead offering the possibility to form relationships between hospitals and employers. The big market isn’t those who are insured or underinsured, but all of those people who work for companies that don’t subscribe to insurance services and instead offer their patients medical services as a direct benefit,” says Acuña.

**Solutions for Everyone**

The president of Medical Travel Under the Sun stresses that the Cancún cluster works with two sorts of tourists to the Mexican Caribbean. One of these, together with the hospital, sets up their treatment months in advance; the other is a traveler who’s on vacation there and makes the most of their stay to address some health issue.

Thus, says Acuña, there are foreigners who schedule major surgery on their calendar, treatment for such illnesses as cancer or stem-cell therapy, and there are others who get there, spend a few days on the beaches of Cancún and use their visit to get a dental transplant or to have some diagnostic tests done.

“Thousands of tourists arrive in the Mexican Caribbean seeking health services and, for example, some come for stem-cell treatments, investing between 15,000 and 20,000 USD,” says Acuña. He adds that a large portion of the surgical procedures that are performed at Medical Travel Under the Sun aren’t invasive, so that patients are hospitalized for the least time possible, have outpatient treatment and make the most of the tourism destination where they’re staying.

Profiling the patients who travel to Cancún to get health care, Acuña says that at least 70% come from the United States, 20% from Canada and 10% from Belize. Among the cluster’s associates, the specialties in highest demand are knee and hip replacement surgery; gastric operations for the overweight; dental implants; in vitro fertilization; biocellular medicine and cosmetic surgery.

Servando Acuña concludes, “A vision that I’ve shared with the government is that within 10 to 20 years Mexico will become a hub of medical services for foreign patients. The Mexican Caribbean has proven its marketing savvy, with international renowned destinations such as Cancún and Riviera Maya. The goal is to provide world class health services at affordable prices, and, so far, with thousands of extremely satisfied foreign patients, we are on a healthy and promising path.”

[www.ciceg.org](http://www.ciceg.org)
JALISCO, MAJOR DESTINATION FOR MEDICAL TOURISM IN MEXICO

Jalisco’s cluster of highly specialized clinics, concentrated in the cities of Guadalajara and Puerto Vallarta, is directly connected to the United States and Canada via solid infrastructure.

With quality medical services, a strategic geographic location, tourism infrastructure, hospitals and affordable services, Jalisco, in western Mexico, is one of the country’s most attractive health tourism destinations, especially for US and Canadian citizens seeking effective, convenient treatment for assorted health issues.

“Among Mexico’s non-border health tourism destinations, we’re number one. We’re talking about one of the best-organized health and wellness clusters in the country, and we also belong to the National Consultative Committee for Medical Tourism. Right now, we’re at the negotiating table to develop a new market in the United States,” says Carlos Enrique Rodríguez Zárate, president of Medical Tourism Jalisco. His association brings together private hospitals from the Jalisco cities of Guadalajara and Puerto Vallarta.

Largely due to Mexico’s geographic location, health tourism has become a key sector in the country’s economic development. Rodríguez points to the sector’s growth since 2015 when medical tourism revenues amounted to over 3.5 billion USD. That figure is expected to reach 5.3 billion USD in 2018.

“We’re really well connected to the United States and Canada, two different markets with a high demand for health services in Mexico. In the United States, for example, the costs for medical services are high, to which can be added the changes in medical coverage driven by the government in that country. So, there are patients who are uninsured or employees having to pay out of pocket,” Rodríguez explains.

“In Canada, there’s a crisis in medical services which aren’t up to covering the growing demands of the population. Both Americans and Canadians are turning to Mexico for their health needs due to its proximity, but also for the cost and quality they get in this country,” he adds.

In Guadalajara, one of the country’s top three cities, health tourism has grown at an annual rate of 7% over the past decade. The president of Medical Tourism Jalisco attributes this phenomenon to the fact that there are quality high-tech clinics specializing in different fields in these cities.

Jalisco’s other high-demand spot for foreign visitors seeking medical services is Puerto Vallarta, a tourism destination in its own right with beautiful beaches and ample hospitality infrastructure to ensure visitors a comfortable stay. Two of the Medical Tourism Jalisco group clinics are located here.

Plastic and cosmetic, bariatric, hip and knee and ocular surgery; cardiological, dental and fertility treatment; and organ and tissue transplants are the services most sought after by foreign patients among the Medical Tourism Jalisco members.

Ten years in operation – it was legally established in 2008 – the cluster provides not only health and tourism services but also transport and legal options. Throughout its existence, the organization has created synergies with other bodies such as state and federal governments, chambers of commerce and medical research institutions to position Guadalajara as one of the top places in Mexico for health tourism.

“We work alongside ProMéxico, with whom we’re planning to internationalize the health services offered by Jalisco. We have periodic meetings throughout the year, and together with the Ministry of Health, we organize trade missions in cities like Houston and Los Angeles in the United States, mainly to...
make inroads into this new market in terms of health and wellness. Companies from the United States are increasingly interested in Mexico due to its low-cost health services, which is the reason we’re working with those companies, as well as with insurers," says Rodríguez.

The fact is, according to Rodríguez, the country ranks among the top 10 places in the world for this sector, and that position could improve still further considering that the United States population is aging, and consequently has new needs in health services.

Increasingly, American senior citizens are looking to set up second homes in Mexico, going there to get medical attention and staying for extended periods. Thus, there are a number of American retirement communities in Mexico. In the case of Jalisco, the town of Ajijic, on the banks of Lake Chapala, has accommodated a significant American community for the past two decades. Of Ajijic’s 10,000 inhabitants, no fewer than 4,000 are of US origin – there are even Democrat and Republican party representatives based there.

“As a health and tourism ecosystem, Jalisco is getting stronger every day. We need to follow this up with the national leadership and position Mexico as one of the world’s best destinations for the sector,” comments Carlos Rodríguez.

Certified domestically and internationally, Jalisco’s medical cluster doesn’t just focus on hospitals. In August 2018, it pushed for a set of certifications for the hotel sector so that tourism and health could go hand in hand there; the American Chamber of Commerce Mexico joined this effort. The goal is for patients coming to Jalisco not only to obtain quality medical services for a particular illness but also for them to monitor their health in the state.

Health tourism has become a key sector in the country’s economic development. Rodríguez points to the sector’s growth since 2015 when medical tourism revenues amounted to over 3.5 billion USD.
Those behind the medical tourism complex known as NewCity Medical Plaza of Tijuana are sowing the seeds for the best possible harvest in summer 2019, when the development is due to open for business.

They’re also instilling confidence among their virtual segment of the market: patients from the United States and Canada in search of healthcare at competitive prices. They’re forging alliances with leading healthcare technology providers in North America – Grupo Abadi, which is behind the project, received the Excellence in Healthcare Award in 2018 by industry entrepreneurs gathered at the Smart Health conference in Las Vegas. They’re providing assurance to Mexican and US authorities by complying with the certification processes of the Joint Commission International (JCI). And they’re attracting the attention of the players in the medical tourism sector. In 2017, Isaac Abadi, general manager of Grupo Abadi, received recognition as Most Outstanding Medical Tourism Service from the Global Awards organization.

Grupo Abadi also participates in panel discussions with Mexican authorities on the northern border’s potential as a point of interest for foreign patients, and at the same time convenes doctors from central Mexico to take part in the complex under construction in Tijuana –the goal being that the entire health ecosystem will level its gaze at NewCity Medical Plaza, planned to provide 360-degree services to patients and their fellow travelers.

“We’re making a micro-universe where everything happens: there are clinics, labs, imaging centers, pharmacies, restaurants, beauticians and a gift shop,” says Zury Duek, a member of the Grupo Abadi board.

According to information provided by the firm, the project encompasses an 28-floor building housing clinics, a 154-room hotel, a 10,000 square-foot conference center, a shopping zone and a gastronomic market. Its directors expect to receive 800,000 visitors in the first 24 months of operation.

Medical Visit: An Experience
Patients will catch a domestic flight to San Diego and half an hour later they’ll cross the border to Tijuana, Baja California. From there it’s just 500 meters to a place that has everything: your trusted doctor, a shopping mall to spend the afternoon, a pharmacy that supplies what your specialist prescribes and a room for the night.

If patients check in to their hotel before their doctor’s appointment, NewCity Medical Plaza will notify the clinic that they’ve arrived, after which the doctor’s assistants will call to say when the specialist is ready to receive them. Some patients will come to NewCity Medical Plaza for a dental appointment, others for some surgical procedure; for the latter, the developers have designed special rooms in the hotel with all the amenities patients need for their convalescence; a hospital bed, panic button in case of emergency, nursing service and what’s more, remote devices controlled by smartphone.

Practical, Well-Organized Health Tourism
This sort of complex, says Duek, addresses an issue that may have frustrated Tijuana’s potential for medical tourism in the past: the fact that doctors and related services are scattered around town and Americans’ and Canadians’
reluctance to seek out unfamiliar places in the city. “People go directly to the doctor who’s been recommended to them or who they already know; it isn’t easy to ask for referrals.”

NewCity Medical will set up a network so that patients in Tijuana for the first time can consult a directory with information on all the doctors available for a broad range of specialties.

And these are doctors from all over Mexico, as the business model—which health professionals or private clinics become proprietors of their offices or workplaces—is attractive to those who consider Tijuana an ideal spot to pursue their careers.

In terms of the attractiveness of the border city, Baja California Tourism Minister, Óscar Escobedo, reported in May 2018 that the state is visited by more than 2.4 million patients and their companions each year—60% of whom arrive at Tijuana— and that medical tourism in the state brings in an estimated 800 million USD annually.

ProMéxico, for its part, has revealed in its reports on the sector that the specialties most sought after by American and Canadian patients who cross the border for treatment include: cardiology, cosmetic and reconstructive surgery, reproductive health and fertility, ophthalmology, oncology, orthopedics, dentistry, gastric surgery, traumatology, spine surgery and bariatric surgery.

“We’re making a micro-universe where everything happens: there are clinics, labs, imaging centers, pharmacies, restaurants, beauticians and a gift shop,” says Zury Duek, a member of the Grupo Abadi board.

NewCity Medical Plaza promises to integrate state-of-the-art technology into the treatments that require it; to have all the certifications required by the Mexican government and North American regulatory agencies; and to furnish user-friendly digital tools.

“We believe that a lot more people will come to us than go to Thailand, India or other parts of Asia. We’re building relationships with insurance agencies and companies that are dedicated to promoting medical services among foreign patients,” Duek concludes.

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SUN, SAND AND GALENIA

Cancún is famous for its white-sand beaches, but this top tourist destination in South Mexico is also home to Galenia, a hospital with 35 specialties that treats some 50 foreigners a month.

BY ANTONIO VÁZQUEZ

Every year, millions of foreigners flock to the Caribbean destination of Cancún to enjoy its beaches and other tourist attractions, which happen to include health services like those offered by Galenia, a clinic that has been treating foreign patients for the last six years.

“Today, over 40 million US citizens do not have health insurance or have limited coverage. So they look elsewhere for options to deal with health problems their insurance doesn’t cover, like bariatric surgery for obese patients,” says Galenia CEO Eduardo Loya.

The number one tourist destination in Latin America, Cancún receives an average of 4 million foreign visitors a year—more than Brazil and Argentina combined—, many of whom come here for health or medical reasons.

Cancún is the second-best-connected city in Mexico and has an international airport from which daily flights to the United States, Canada and Europe are available.

“We started to notice that many tourists with major health issues were coming here on vacation. Today we treat an average of 50 patients a month who come here not on vacation, but seeking exclusively medical attention. They come from all over, but mainly from the United States,” says Loya, adding that “Central America is another important market niche. We have patients from Belize, Guatemala, El Salvador and Honduras. We also get a lot of patients from Russia, especially in our maternity ward.”

According to Loya, the medical staff at Galenia is highly qualified. Its doctors are board-certified specialists on a par with those found at Mexico City’s most prestigious hospitals.

“Many of our doctors went to the same universities as those who now work at these medical institutions. They are specialists who decided to leave the big city and came to places like Cancún. Several have PhDs from foreign universities and have operated in the United States. They are as well trained and experienced as any other specialist in the United States.”
Federal and state authorities, he says, have shown a willingness to work together and dialogue, but above all they have shown an interest in promoting health tourism in Cancún.

“The authorities are focused on assisting and supporting health enterprises. It’s a market just waiting to explode. It has the potential to generate substantial foreign-currency revenues, provided the commitment is there. During the current administration, the authorities realized health tourism is a lucrative business, but a lot remains to be done,” says Loya.

As for Galenia, the company has a very specific short-term goal: to open another hospital of the same standard as its Cancún facility in Playa del Carmen. “We will continue to introduce new technologies and seek out new clients. We’ve realized that the key is to cut out the middleman and deal directly with multinationals looking for alternative health coverage for their employees,” Loya concludes.

“\"We started to notice that many tourists with major health issues were coming here on vacation. Today we treat an average of 50 patients a month who come here not on vacation, but seeking exclusively medical attention. They come from all over, but mainly from the United States.\"”
INTERVIEW WITH AMBASSADOR QIU XIAOQI
AMBASSADOR OF THE PEOPLE’S REPUBLIC OF CHINA TO MEXICO

CHINA AND MEXICO: ALLIES AND CHAMPIONS OF FREE TRADE

In an interview with Negocios ProMéxico, Ambassador Qiu Xiaoqi, ambassador of the People’s Republic of China to Mexico, talks about the China International Import Expo (CIIE) and Mexico’s participation as an invited country. For Ambassador Qiu Xiaoqi there’s plenty of potential for China-Mexico relations, and for CIIE.

BY SERIGO ANAYA

—What is the importance of CIIE?
The global economy is now facing some major problems. The global economic situation is quite complex and uncertain. In the face of this situation, China is playing an important role. Since 2017, the president, Xi Jinping, has said repeatedly that China defends free trade, multilateralism and the globalization of the economy. We think that over the last few decades these processes have brought concrete benefits to a broad array of countries in terms of economic development.

China and Mexico have made much progress and many important achievements thanks to these processes. For this reason, it’s highly significant that our countries are coming together and working together on a number of international agendas. We hold similar positions and common criteria on a range of problems in the world today.

CIIE is celebrating a crucial moment for China and for the world. This year we commemorate 40 years of the process of reform and opening in China, a process that has ushered in a profound transformation of the country. Over the last few decades China has maintained steady economic growth with an annual rate of nearly 10%.

The opening of China has been instrumental in this growth. For this reason, we think the best way to commemorate the process is to open China still further to the world, and this is precisely one of the aims of CIIE.

—What is expected of Mexico’s participation at CIIE?
I’m sure that Mexico will do very well at CIIE. Mexico belongs to a group of countries that were specially invited to this event – the Latin American members of this group are Mexico and Brazil. Since 2017 we’ve worked with a number of different players – such as the Ministry of Economy, ProMéxico and the Consejo Mexicano de Comercio Exterior, Inversión y Tecnología (Mexican Business Council for Foreign Trade, Investment and Technology, COMCE) – to coordinate Mexico’s participation at CIIE. As of this date, a number of Mexican companies have confirmed their participation at both the national pavilion and the companies pavilion.

As of now, around 150 countries have confirmed their attendance, along with nearly 200,000 importers from China and other countries. I’m sure many business agreements will be worked out.

—In which sectors is there the most opportunity to deepen trade relations between China and Mexico?
In the last few years, particularly from 2013 onward, relations between China and Mexico have broadened and strengthened on every front: politically, economically, commercially, scientifically, educationally, culturally, technologically.
China and Mexico have a comprehensive, strategic association, and this speaks to the high level of confidence in each other’s policies that exists—suffice to say that the presidents of China and Mexico have met on seven occasions.

China sees Mexico as one of its most important partners, not just in Latin America but on the global level. Despite the complex situation in the global economy, trade between China and Mexico has grown. Now Mexico is China’s second largest trading partner in Latin America, as is China for Mexico on the global level, second only to the United States. Our trade relations have grown quite a bit, but there is still much potential, which is why the participation of Mexican companies at CIIE is so important.

A number of Mexican products are very well received in China: beef, pork and chicken; fruit; vegetables; tequila; products for the automotive industry. In 2017 alone, commercial exchange in the food sector rose 40% compared with 2016, and there remain many opportunities for Mexico to increase exports to China. The Chinese market is very large and there is a great demand for food, but Mexican products aren’t so well known; they need to be heavily promoted for China to know more about what Mexico produces.

—in this sense, what would be your recommendation to Mexican companies that approach the Chinese market?

It’s very important for Mexican entrepreneurs to diversify the destinations of their exports. To be sure, the North American market is very important for Mexico, but there are many opportunities for Mexican products in other markets. Mexico should look toward other parts of the world.

—how is Mexico perceived in China? What opportunities do you see to strengthen ties between our countries?

Mexico is an emerging economy with great possibilities. During the five years I was in Mexico, I traveled almost everywhere in the country, I was in the most economically dynamic cities, and I was able to see for myself that it’s a country with enormous potential. The challenge is to see how China and Mexico can work jointly to make the most of this potential.

China can offer many joint opportunities in its relations with Mexico. China is promoting the Belt and Road initiative. It’s made headway in Europe, Asia and Africa, and in 2017 it was extended to Latin America, which has historically played a very important role in relations between China and the West. I think that this initiative can be quite beneficial for Mexico, but we still need to promote it among Mexico’s public and private sectors.

—Where are China-Mexico relations headed? China is inclined to keep on working with Mexico. We’re one of the biggest investing countries in the world; we don’t just receive investment, we also invest in many countries. I hope that, in the near future, Chinese investment in Mexico increases—President Xi Jinping announced that in the next few years China will invest 250 billion USD in Latin America.

China and Mexico are going through a very important period, a stage of profound transformation and far reach. We’re convinced that the reforms we’re promoting are the best way to maintain development in both of our countries. For China it’s quite clear that the path is to keep moving forward with the reforms and the opening, and we want to keep working with Mexico on this process.

“In the last few years, particularly from 2013 onward, relations between China and Mexico have broadened and strengthened on every front.”

AMBASSADOR QIU XIAOQI, AMBASSADOR OF THE PEOPLE’S REPUBLIC OF CHINA TO MEXICO

PHOTO ARCHIVE
China plays a significant role in Mexico’s trade diversification strategy. Over the past decade, trade between Mexico and China has more than doubled. Today, China is Mexico’s second trading partner with exchanges that reached 81 billion USD in 2017 – 8% more than in 2016. This positive tendency is also present in 2018, since during the first seven months of this year bilateral trade registered a 15% increase when compared to the same period of 2017. China is also the second source of Mexican imports and the fourth destination for Mexican exports. At the same time, Mexico has remained the first trading partner for China in Latin America.

Mexico’s trade with China is also relevant for its diversity and quality. We exchange a wide range of products, from high-quality agri-food products to high value-added manufactures, which shows the profound interest our business sectors have in each other’s markets and the strong economic ties we have been able to develop. In 2017, for example, trade in food between Mexico and China surpassed 1 billion USD, the highest record so far – allowing more than 120 Mexican products like avocados, beer, tequila and seafood, among many others, to be enjoyed by Chinese consumers.

Also worth noting is the fact that trade with China is increasingly important for Mexico’s global value chains. Approximately 71% of Mexican imports from China are intermediate goods related to the automotive, electric-electronic and mechanical sectors, that Mexican industries transform into final goods that are later either consumed in the domestic market or exported to other markets around the world. For example, in 2017, Mexico remained China’s first Latin American car and auto parts supplier, and China became the fifth destination for Mexican cars and auto parts exports.

In terms of investment, China has positioned itself as the third largest Asian investor in Mexico, just behind Japan and South Korea. Chinese investors have systematically increased their presence in the Mexican market showing a growing interest in exploring its potential – given its size, its strategic location and its investment environment. Emblematic Chinese enterprises such as Lenovo (personal computers); ZTE and Huawei Technologies (telecommunications); BAIC and JAC Motors (vehicles); Minth and Minghua (auto parts); CNOOC, Envision Energy and JinkoSolar (energy); Haier and Hisense (electric-electronics); and ICBC and Bank of China (financial sector) are just a few examples of successful Chinese investments in Mexico.

At the same time, some of Mexico’s largest and most important companies are fruitfully investing in China. Such are the cases of Bimbo (baked-goods); Gruma (corn and wheat products); Softek (software); Nemak and Metalsa (auto parts); Kuo Group (chemical products), and ICC (ceramic products), among many others.

To propel bilateral investment even further, presidents Enrique Peña Nieto and Xi Jinping have reiterated during their seven encounters the top priority that bilateral investment entails. As a result, Mexico and China have
jointly established a High-Level Working Group on Investment and a Binational Investment Fund, with a joined capital of 1.2 billion USD that has already been put in use, among other initiatives intended to boost strategic partnerships between Mexican and Chinese companies.

Tourism flows between Mexico and China are another reflection of the extraordinary dynamism recently experienced by the bilateral economic agenda. With 3,000 years of history, welcoming people, topnotch cultural options, breathtaking natural landscapes, impressive archeological sites and colonial treasuries, a delicious cuisine and state-of-the-art infrastructure, Mexico has become a hot spot among Chinese travelers.

In 2017, over 142,000 Chinese tourists visited Mexico—14.5% more than in 2016. Mexico has become the preferred destination for Chinese visitors in the Latin America and the Caribbean, and China is the second most important tourism market for Mexico in the Asian region.

This positive trend prevails in 2018. Between January and July 2018, over 98,000 Chinese visitors arrived to Mexico—28.2% more than in the same period of 2017.

These positive results have been possible thanks to the effective promotional activities that Mexico has carried out in numerous Chinese cities, but also due to the visa facilitations that Mexico has been implementing in recent years, the strategic alliances the country has forged with key Chinese players in the market, and the increasing air connectivity that both countries have jointly fostered.

Mexico and China have made unprecedented efforts to facilitate people-to-people exchanges, as well as the interaction between the business sectors of both countries.

As a result, the two nations have substantially increased air connectivity in the past few years to ten flights per week operated by both Mexican and Chinese carriers that have recognized and are taking advantage of the potential of the bilateral economic relationship. This strong connectivity consolidates Mexico as China’s gateway to Latin America and the Caribbean.

Through coordinated and systematic efforts, Mexico and China are strengthening and deepening their comprehensive economic agenda. The inclusive, strategic and long-term vision that both countries are jointly implementing to consolidate their economic relationship will open new avenues for collaboration and partnership. Now is the time to explore the opportunities that Mexico has to offer.

“In the last few years, particularly from 2003 onward, relations between China and Mexico have broadened and strengthened on every front.”
The diverse efforts and promotion towards, China International Import Expo (CIIE) shows how Chinese government is willing to not only be the worlds’ largest export partner but also one of the largest importers. The fair’s main goal is to facilitate countries and regions all over the world to strengthen economic cooperation and to promote global trade in order to make the world economy more open.

This initiative cannot be compared to any other exhibition before. Xi Jinping, President of the People’s Republic of China, has stated in many events the importance and the commitment of China to the success of this exhibition. As he stated in the Boao Forum for Asia Annual Conference 2018, “This November, we will hold the first China International Import Expo in Shanghai. It is not just another expo in an ordinary sense, but a major policy initiative and commitment taken of our own accord to open up the Chinese market.”

CIIE welcomes and bring together government officials, business leaders, international exhibitors and professional buyers from China. The expo is hosted by the Ministry of Commerce of the People’s Republic of China and the Shanghai Municipal People’s Government and organized by the China International Import Expo Bureau and the National Exhibition and Convention Center in Shanghai—which serves as venue with its 1.5 million square meters of construction and 500,000 square meters of exhibition area.

In this first edition of CIIE, Mexico will participate with a National Pavilion, coordinated by ProMéxico, and a Business Pavilion, coordinated by the Mexican Business Council for Foreign Trade, Investment & Technology (COMCE). Mexico belongs to a key group of 12 countries that are being considered Guests of Honor due to their commitment and potential for trade with China and the rest of the world.

Being a Guest of Honor implies an active participation in substantial events organized within CIIE. Mexico will have a strong presence in the parallel activities that will take place in early November across China, such as China LAC in Zhuhai, the High-level Working Group of Chinese and Mexican Entrepreneurs (GANE) in Shanghai, and CLACIE China – Latin America and Caribbean Investment Exchange– in Beijing.

It is expected that companies from more than a hundred countries will attend CIIE.
Thus, the expo will be an opportunity to showcase the variety of products that Mexico has to offer to the region. It is true that some Mexican products are already known in China, but the potential success for a new wave of Mexican products to the market is significant.

A matchmaking event called Exhibitor-Businessman Supply-Demand Matchmaking Conference of the First CIIE, with a two-day agenda of sessions for partners to explore Chinese market’s demands and needs, will allow Mexican companies to reach strategic alliances. It is expected that more than 5,000 registered and certified Chinese buyers will be participating.

Many Mexican states have showed their interest in joining ProMéxico and participate in the Mexican National Pavilion, since China is one of the most dynamic and promising marketplaces of the world.

ProMéxico is very excited about the opportunities for Mexican companies that CIIE will bring in terms of visibility and business exchange. Participating in CIIE will deliver to them a very good first step into Asia in order to find a good counterpart or buyer, not only from China but from around the globe.
INTERVIEW WITH AMBASSADOR SERGIO LEY LÓPEZ
PRESIDENT OF THE ASIA-PACIFIC SECTION OF THE MEXICAN BUSINESS COUNCIL FOR FOREIGN TRADE, INVESTMENT AND TECHNOLOGY

MEXICO IN CHINA
INTERNATIONAL IMPORT EXPO: A WORLD OF OPPORTUNITY AWAITS

Ambassador Sergio Ley López, president of the Asia-Pacific section of the Mexican Business Council for Foreign Trade, Investment and Technology (COMCE) and former Mexican ambassador to China, discusses Mexico’s participation at the China International Import Expo (CIIE) and its importance for strengthening trade relations between the two countries.

For Ambassador Ley, the key to strengthening ties between China and Mexico resides in how much each country knows about the other. CIIE offers a unique opportunity for Chinese businesspeople to find out more about what Mexico produces and for Mexican businesspeople to get a better understanding of how the Chinese market works and what it needs.

BY SERIGO ANAYA
—Why is it important for Mexico to participate in the CIIE?
I think that it’s a golden opportunity for Mexican exporters. One of the main issues in Mexico-China relations, and perhaps one of the main reasons Mexican companies don’t maintain a strong presence in this Asian country’s market, is a lack of knowledge on the part of both countries. China knows very little about Mexico and what it produces, and we in Mexico know very little about China and what China produces.

Our main interest in being there is for China to find out about what Mexico offers. I think that this is a unique opportunity because countries don’t usually organize fairs for exporters from other countries that want to enter its market in practically every sector. Besides, Mexico has a privileged role, as it was one of the 12 countries invited to this edition.

—Where do Mexican companies have the best opportunities in the Chinese market?
There’s great opportunity for Mexico in such areas as the food sector. CIIE opens a window on Mexico’s food production to a country that now—and for the foreseeable future—needs great quantities of food. Just 17% of China’s surface area is cultivatable; this isn’t nearly enough to satisfy the needs of such a large population, with a middle class that now exceeds 600 million people and is growing.

China currently imports food from countries like Ukraine, Argentina and other South American countries, but the place in Latin America that’s closest to China is Mexico, though up to now Mexican producers haven’t looked at the Chinese market, partly because most Mexican food exports went to the United States. Now is the time for Mexican producers to diversify their markets and this is a unique opportunity to let China know about their products.

—So Mexico’s best opportunity at CIIE is in the food sector?
It’s one of the sectors where China will be open right away. Several protocols have been signed to facilitate the entry of Mexican foods into China and, with a diplomatic boost at the highest levels, additional agreements can be reached. I think this can be achieved in a very short time.

Obviously we’re not alone in this. The Chinese market is highly competitive and the competitors in our region, such as Chile and Peru, have significant, high-quality production. We have the advantage of seasonal stability: we harvest at different times of the year, which to a certain degree makes us complementary competitors. Nevertheless, there’s a disadvantage for Mexico: Chile and Peru have free-trade agreements with China, which means that their food products are free of tariffs.

Within this context, Mexico does have one competitive advantage: thanks to its participation in the North American market, the country has developed tracking systems that can be matched by very few other food producers in the world. Now, for example, if a vegetable is produced in Sinaloa and consumed in Syracuse, New York, and it causes someone to fall ill for some reason, from a computer in the supermarket that sold the product you can find out where it was produced, who picked it, the date that it was picked and when it crossed the border. Few countries can offer this security and this is the sort of thing that China is looking for.

Then there is, for example, the auto parts industry. Thanks to the growth of its automotive industry, Mexico has been able to develop a domestic supply of auto parts. Right now China is the world’s biggest producer of vehicles, by a long shot: according to some statistics, China produces around 40 million units per year—though others say that Chinese vehicle production is 30 million units.

The Chinese automotive industry needs supplies and this opens an opportunity for Mexico, which has a highly sophisticated auto parts industry. There are already examples of Mexican companies that are manufacturing auto parts in China or that are exporting them from Mexico.

—What should be Mexico’s strategy for going into the Chinese market?
One good strategy is to identify a niche market. For example, China is the world’s largest manufacturer of shoes. They produce around 70% of the world’s footwear there. Nevertheless, Italian companies are selling shoes in China at very high prices, because they’ve known how to penetrate a niche market that seeks design, quality.

Just because China is the biggest producer of some product doesn’t mean that there is no space in its market for products from other countries. What’s important is to reach the market with an original product, something novel with high quality.

—What opportunities are there for Mexican small and medium-sized enterprises (SMEs)?
Most of the Mexican companies participating in the CIIE are SMEs. I’m convinced that they have many opportunities and that they’ll make some deals. Most of the Chinese companies that export to Mexico are also SMEs.

“Mexican companies have the experience of competing in the North American market, and they’re ready to do the same in the Chinese market. Mexican products are of great quality and can compete with any other part of the world.”
—What challenges do Mexican SMEs face going into the Chinese market?

In general I think the biggest challenge is how to become known in a market as big China’s. I think that an important part is to participate in trade fairs and events. Every year thousands of trade fairs take place in China; there are events of this sort in every province—and some provinces are as big as Mexico and even register a larger gross domestic product than our country does. It’s important for Mexican SMEs to participate in these events—just as they are doing in CIIE.

It’s important for China to know what Mexico has to offer. There are many opportunities for Mexican products, but they must know how to position themselves. We can’t expect Chinese buyers to knock on the doors of our companies. You’ve got to know how to highlight the competitive advantages of Mexican products—such as their traceability in the case of foods, for example—so Chinese buyers will favor our products over those from other countries.

Mexican companies have the experience of competing in the North American market, and they’re ready to do the same in the Chinese market. Mexican products are of great quality and can compete with any other part of the world.

—Aside from the trade fairs, what other mechanisms can Mexican companies use to go into the Chinese market?

There’s electronic trade. Recently an agreement was signed with Alibaba so that Mexican companies could offer their products on that electronic trade platform. This agreement enables Mexican SMEs to make Chinese consumers aware of their products without the need to have any representatives in China. Currently, for example, Mexican avocados are already being sold via this platform. It’s important for a greater number of Mexican businesspeople to become familiar with these mechanisms and take advantage of them.

Mexico is now at a point where there’s an evident need to diversify its exports and the places where they’re going; our participation at CIIE is a great opportunity to make headway in this regard.
China is dealing with an extremely challenging situation, posed between the transformations of its particular and sophisticated neoliberal model and the bashing of international protectionism that, all together, threaten the bases of legitimacy of the current regime, the economic welfare of its population and its political stability.

While it no longer enjoys the approximate average gross domestic product (GDP) growth rate of 10%, recorded from 1991 to 2008, its current rate of over 6% (6.9% in 2017) is still enviable. That trend, in fact, got China through the 2008 world financial crisis much better than other countries and has allowed it to finance ambitious economic projects overseas, maintain positive participation in multilateral financial mechanisms and move forward on cooperation schemes and bilateral financial support with numerous countries on all five continents. Thanks to this strength, China is now responsible for about 30% of world economic growth and enjoys a highly influential position on the international scene.

Undoubtedly, the most outstanding areas of China’s transformation in recent years are economic, financial and commercial. Since President Xi Jinping’s administration began in 2013, China has opened 11 pilot free trade zones – starting with the one in Shanghai –, continues internationalizing its currency through foreign transactions, and has successfully hooked up with stock markets to
These recent changes in China represent an opportunity for Latin America as a whole and Mexico in particular. (...) China is attentive to the signs of trade opportunities in the Americas, while a renewed Mexico has begun turning its gaze toward Asia again.

These recent changes in China represent an opportunity for Latin America as a whole and Mexico in particular. At a time when Beijing is attentive to the signs of substantial internal challenges, outstanding among them the need to increase investments, manufacturing sector production and sales to consumers and for its financial institutions to accelerate credit growth.

Other major transformations in the country involve stimulating social forces to tackle the needs of current and future economic growth. The Five-Year Plan 2016-2020, underway now, is noteworthy. Aimed at turning China into a powerful economy by the year 2049, it specifies measures to free more than 70 million inhabitants from poverty, improve employment levels, officially end the single-child policy and allow greater internal migration flexibility by reforming the family registration system (Hukou) as a way of stimulating population growth in less developed zones in the country, among others.

Major decisions have also been made to deal with corruption, as well as to strengthen national security and modernize the legal system. Anticorruption campaigns were launched in 2013 at all levels of government; new laws have been enacted focusing on national security and the fight against terrorism, in addition to several pieces of legislation that have reinforced control of digital contents and cyber-security. Furthermore, among the recently approved legal system reforms are court administration improvement, implementation of “artificial intelligence” for archive administration in the near future and procedural optimization within the judiciary.

Along with more extensive economic reform, China has taken radical measures to reinforce political power and public administration. Between November 2017 and March 2018, the Chinese Communist Party and the National People’s Congress led the most recent reform of the party and state organisms, starting with the Politburo and the Presidency of the People’s Republic. Most of the Politburo Standing Committee of the party’s Central Committee was replaced in late 2017, and President Xi Jinping’s way of thinking is now ranked as constitutional by that political organism. What’s more, following the most recent meeting of the National People’s Congress, in March 2018, the limit of two five-year presidential periods has been removed, thereby opening the door to solid personal direction by the Chinese chief executive in the implementation of more reforms in upcoming years.

Furthermore, extensive restructuring of ministries and government agencies included creating the ministries of Veterans’ Affairs and Control of Emergencies, fusing the banking and insurance regulating commissions into a single agency, as well as eliminating other organisms.

Such measures are meant to optimize State functions, eliminate responsibility duplication, guarantee loyalty of the armed forces to the Communist Party and deal with new problems in various spheres of government.

As an integral part of the grand strategy for ensuring the wellbeing of its population and maintaining continuity of political institutions, China looks the world over for the elements needed to increase its economic, political and military security, and project its power with partners and allies.

Due to a personal initiative of President Xi Jinping, since 2013, China has revived the idea of connecting the more and less developed parts of its country with Europe via the ancient silk routes through central Asia, the Indian Ocean and the Near East. The initiative considers two large corridors—one by land and the other by sea—reconnecting the routes by means of ambitious infrastructure projects in Central Asian countries, Russia, Southeast Asia, Africa’s Indian Ocean coast and the Mediterranean basin.

With the backing of huge bilateral and multilateral financing—such as those coming from the Asian Infrastructure Investment Bank—the Chinese attempts to guarantee its economic and commercial dynamism throughout much of the world. Moreover, Beijing wants to consolidate its role as commercial leader in the east Asia region through negotiations of the Regional Comprehensive Economic Partnership (RCEP) with 15 other nations in Asia and Oceania, and since 2014, it has aspired to materialize a Free Trade Area of the Asia-Pacific (FTAAP) under an ambitious agreement that could encompass APEC economies at a future time.

These recent changes in China represent an opportunity for Latin America as a whole and Mexico in particular. At a time when Beijing and Washington are wrapped up in a trade war and Mexico modernizes its trade agreement with North America, China is attentive to the
signs of trade opportunities in the Americas, while a renewed Mexico has begun turning its gaze toward Asia again.

The framework of understanding between China and Latin America and the Caribbean is the second White Book 2015 for this region, via which Beijing would like to reinforce mechanisms of cooperation, trade and investment.

Taking advantage of the interest expressed by China to explore the possibility of a new silk route of sorts to the Americas, Latin America must seek further investments, set up projects with broad national participation and more balanced trade.

To this end, the recommendation is for Mexico to apply for entry into the Asian Infrastructure Investment Bank—as other Latin American nations, such as Argentina, Brazil and Peru, have already done.

Moreover, taking advantage of the structural change in the Chinese economy—with the expected gradual trade deficit decrease with some nations and greater internal consumption derived from the growing purchasing power of its swelling middle class—, Mexico will have the opportunity to both strengthen markets for established companies competing in China, and identify and act upon market niches for SMEs and others firms entering new sectors of this Asian economy.

Mexico must make the most of the opportunities that China represents as one of the main powerhouses of the world economy, constantly on the lookout for the legal certainty that this great nation, with a population of 1.4 million and a solid leadership position, must provide.

Trade and investment in new areas of the economy between Mexico and China may be one of the engines driving our bilateral relationship over the next few years, and the China International Import Expo is clearly an ideal forum for introducing new businesses.

*Professor-researcher with the Asia Pacific Studies Program (PEAP) at the Instituto Tecnológico Autónomo de Mexico (ITAM)."
BANCOMEXT: STRENGTHENING TIES WITH CHINA

Since its creation, in 2013, Bancomext’s office in Beijing has been working to explore new opportunities to strengthen the bilateral relation between China and Mexico.

Next November, Mexico will be the guest country to the first China International Import Expo in Shanghai.

Bilateral trade between China and Mexico reached a value of almost 81 billion USD in 2017. China is Mexico’s second trading partner and the fourth recipient of Mexican exports. In Latin America, Mexico is China’s main trade partner.

In 2013, during President Xi Jinping’s visit to Mexico, President Enrique Peña Nieto announced the establishment of a Representative Office of Bancomext in Beijing, China, aiming to deepen bilateral business relationships.

As Mexico’s Development Bank in charge of financing international trade and the Mexican Export Credit Agency (ECA), Bancomext has established and continues to look for cooperation opportunities with Chinese financial institutions.

Bancomext’s office in Beijing is engaged in activities to facilitate the internationalization of Mexican firms, and to foster foreign direct investment in Mexico through products and services such as Letters of Credit, Bid Bond guarantees, Syndicated Loans, and Project Finance—directly or through commercial banks and non-bank financial intermediaries in the Asian region.

With an increasing interest of Mexican companies in the Chinese market, as well as Chinese companies interested in investing in Mexico, Bancomext presence in China is a milestone to strengthen the long-term threading between the two countries.

Since its opening in China’s capital, Bancomext has participated in two Presidential visits and several high-level missions, as well as State visits to promote investment through its financial products and services.

In addition, Bancomext has been invited to participate in different trade, investment and financial forums, as the China-LAC, One Belt-One Road, Fintech and renewable energy related, among others.

Bancomext’s office in Beijing has been working closely with other Mexican government entities, including ProMéxico, to promote jointly trade and investment in the Asian nation.
Thus, Bancomext has established and continues to look for cooperation opportunities with Chinese financial institutions, such as:

1. Cooperation agreement with the Export-Import Bank of China (June, 2013)

2. Cooperation agreement signed with China Export & Credit Insurance Corporation (Sinosure), in November, 2014. With this agreement, Sinosure is willing to provide guarantees to Chinese companies’ with projects in Mexico, to be financed by Bancomext; it also enables the bank to provide guarantees and services to Mexican companies with projects in China.

3. Renewal of the Bilateral Cooperation agreement signed with the China Development Bank (CDB), to co-finance projects to be developed by Chinese or Mexican companies; provide short-term financing to commercial operations, provide medium and long-term financing for capital goods produced in any of both countries.

4. Bancomext’s CEO, Francisco González Díaz, has held meetings with key stakeholders and initiated negotiations for agreements with the Industrial and Commercial Bank of China, the first Chinese bank to open commercial operations in Mexico, and the Bank of China. The outcome has been positive, since Bancomext has participated in some renewable energy projects developed by Chinese companies in Mexico, and granted letters of credits for operations between companies of both countries.

Overall, Bancomext’s office in China contributes to business cooperation among Chinese and Mexican parties by:

• Developing and maintaining the relationship with financial partners, governmental agencies and financial institutions.
• Identifying investment and trade opportunities to be financed by Bancomext.
• Promoting Chinese direct investment in Mexico through its financial products and services.
• Networking with Chinese companies looking to investing in Mexico.
• Following-up with cooperation agreements signed with Chinese financial institutions.

Bancomext’s office in Beijing has been working closely with other Mexican government entities, including ProMexico, to promote jointly trade and investment in the Asian nation.
ENTREPRENEURSHIP IS FOR EVERYBODY

The definition of entrepreneur is not selective. It includes individuals that transform their community through traditional businesses, as well as those who stir up the life of thousands with revolutionary ideas.

BY OMAR MAGAÑA

Both types of entrepreneurs will cross paths during National Entrepreneur Week (SNE) 2018, to be held September 10-14 in Mexico City’s Centro Citibanamex. Among the common issues that they all need to work out are how they will finance their ideas, which technologies will help accomplish what they’re after, how to attract clients, and how their markets will be transformed in the near future.

Alejandro Delgado, president of the National Entrepreneur Institute (INADEM), organizer of the SNE, the biggest event of its kind in Mexico and Latin America, gave us details about the event that offers the best atmosphere for firming up ideas.

—What topics will the SNE put on the table in this edition?

This year we decided to define the SNE theme around the evolution of the Mexican entrepreneur system.

There are three intersecting axes: innovation, financing and emerging technologies. The INADEM and its Advisory Board have defined five future industrial sectors where Mexico can put a foot in the door and have a true opportunity: Internet of things, robotics and automation, artificial intelligence and machine learning, blockchain and data sciences.

—SNE organization by ecosystems enables encompassing this wide range of topics.

Yes. We have divided the 35,000 square meters reserved for the SNE at Centro Citibanamex into 10 physically located ecosystems: entrepreneur camp, acceleration and high Impact, innovation and technology, high-impact women —expanded this year from 635 to over 1,600 meters—, Entrepreneur Support Network —with all our partners and full opportunity to support and advise new entrepreneurs—, productivity and business, intelligent financing, entrepreneur market, states and government, and creative forum.

These ecosystems will have a great deal of content. This year we are going to have over 800 talks, conferences and workshops. There will be 154 conferences on acceleration and high impact; the Entrepreneur Support Network will have 116, and innovation and technology, 199. Content will be vast and in depth.

Topics include ventures, leadership, women entrepreneurs, new businesses and financing, which is a recurring theme; innovation, technology, business strategy, as well as first-class keynote speeches such as those by Zev Siegl, cofounder of Starbucks; Ricardo Salinas Pliego, president and founder of Grupo Salinas; Ana María Olabuenaga, of marketing and image leader Olabuenaga & Cuchi; Alondra de la Parra, as a Mexican high impact leader, and Andrés Bustamante, who will give a talk on making ventures titled “Incurable Entrepreneur”.

—Regarding this diversity of spaces, what is INADEM’s definition of Mexican entrepreneur?

An entrepreneur is anyone who wants to start a business or an economic activity; a person who moves his entire being to create economic value. It can be a high impact, technologically based entrepreneur or a traditional one.

The great opportunity of startups for Mexico is that it is for everyone. Across the globe, world-class leaders have founded emporiums making coffee, and others have done it designing clothes; they don’t all put rockets on the Moon.
— Have they all been considered for this SNE edition?
   We have defined six profiles: the potential entrepreneur, who wants to be one but doesn’t know where to turn and may not have a business idea yet; the entrepreneur that has an idea and needs help turning it into a business plan and a production unit; young students; the business person who already has a company and wants to be more productive and learn about new models; the innovator that may have a patent in the works or models that improve the status quo; and the investor, who wants to use his/her resources to make businesses grow and seeks a return for further investment.

— Who are the investors and capital funds that will be listening to the entrepreneurs?
   In the intelligent financing ecosystem, we create content and training spaces so that whoever has doubts or wants to learn or find out more can do so. Anyone who wants to leverage his/her business or finance an entrepreneurial idea will find out how, be it with credit, capital or fintech. We are going to have financial (not banking) intermediaries, capital funds, angel investors, the fintech industry; we will have fund of funds as exhibitors: Amexcap; Nacional Financiera, Bluebox and five fintech companies.

The intelligent financing ecosystem is very important, and we produce high impacts in training so entrepreneurs know which financial instrument is best for them and how they should prepare to get financing.

In 2017, the number of trainees in crowdfunding, capital funds and investor networks surpassed 21,200.

— Who takes part?
   The whole Mexican entrepreneur ecosystem participates: incubators, accelerators, high impact incubators, universities, 14 state governments and federal institutions such as the Deputy Ministry of Industry and Commerce, ProMexico, Nacional Financiera, Trust Funds for Rural Development (FIRA), the Mexican Institute of Industrial Property (IMPI) and everyone involved in the production cycle of a new business.

— What is the promotion methodology to attract entrepreneurs? How many do you expect this year?
   This year, the goal is to have more than 110,000 one-time visitors and 40,000 distance visitors at our 2,000 remote connection points. As of today (late August), we have slightly over 55,000 registries; and once the event has started, 80,000 more people are expected to register. We think demand and participation will be good.

Our channels are communication media, the social media, universities and partners with the same message. This gives us national presence.

— How do the remote points work? Is it possible to attend the full SNE program?
   It is possible to attend most of the conferences, both special ones and keynote speeches, transmitted via streaming. Direct access is available at the site www.semanadeemprendedor.gob.mx and at the 2,000 transmission points if folks want to sit down to see all the content we have.

— Why startups; why promote this in Mexico?
   Because the true contributors of innovation in the world are entrepreneurs: 7 out of the 10 most valuable companies worldwide were startups 20 years ago. Economic theory tells us that the largest companies have a static business cycle, while the true generators of new products and competition values are entrepreneurs.

Because Mexico is a young country; it has a mean population age 27 compared to countries like China (42) and the United States (37). Universities are putting a lot of effort into creating entrepreneurs among their own students; they are training them so they can start their own business and generate innovative ideas. A young and educated country, where Mexicans know that entrepreneurship is for everyone, makes it possible for anyone to create his/her own economic reality.

— Family companies that need to update are also included?
   Not just to update: it is important to realize that for SMEs, productivity is central to growth and national economic development. That is why a major part of the SNE is aimed at new productivity models, to train business people in sustainable innovation models and to find out what is happening at the cutting edge of industry.

“This year we decided to define the SNE theme around the evolution of the Mexican entrepreneur system. There are three intersecting axes: innovation, financing and emerging technologies.”
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The Lifestyle

![Image of a building in Madrid with people walking by.]

¡Mi Casa es tu Casa! Casa de México en España

![Image of a woman working with clay in Chiapas.]

WORTH MORE THAN IT COSTS
Chiapas, A Heart of Clay Called Amatenango

![Image of a dish with chips and salsa.]

VEN A COMER
Mónica Patiño A Mexico City Legend Unto Herself
Chiapas has a heart of clay worthy of the most discerning of folk art collectors. It is known as Amatenango del Valle, which means “fortified place of lovers” and it's a stone's throw from San Cristóbal de las Casas, a city in South Mexico that combines tradition and cosmopolitanism. In ancient times, this community went by the Maya name of Tzóontajal. Now in its center stands a white Catholic church with red roof tiles, whose fortitude and simplicity sum up the village and its people. Of Tzeltal roots, the people of Amatenango are down to earth. Their strength is an inner one that lies in their dignity and their remarkable hands—the hands of the menfolk who harvest corn, beans and other crops, while the hands of the womenfolk sculpt jaguars, chickens and peacocks and paint them by hand using techniques passed down from their ancestors long before America and Europe were even introduced to each other.

It’s a life-threatening tradition whose process has been documented in several articles. The clay they work with is only found in a deep well in a place known as Matorral and its environs. They have to extract it in the dry season, so they don’t slip and to avoid the risk of mudslides. Clay is what shapes Amatenango, which is why its inhabitants take great pains to ensure this area remains unpolluted.

Back home, the women knead and roll the clay. Then they start sculpting it using a mechanical potter’s wheel. As if by magic, jaguars begin to emerge from the wheel and their hands.

If you don’t know what a jaguar is, look it up right now. A simple way to describe it is as a big majestic cat with honey and white fur and beautiful black spots. The only panther native to America, there aren’t many of them left, but some can still be found roaming the thick jungles of the Maya region. This feline was central to the
Just as they have been doing since time immemorial, the women fire their works in wood-fired kilns, then burnish and paint them. It can take anything from a fortnight to six months to finish a piece.

worldview of the indigenous peoples of South Mexico and Central America.

Now look for pictures of the jaguars the women of Amatenango del Valle recreate and you will notice they come in a variety of poses: some roar in rage; others lie in wait, attentive or at rest; some are on the prowl; others take the form of naked women caring for their young or making offerings to their gods.

Each of their spots, all hand-painted, tell stories of passion, ancestral wisdom and patience.

The pigments they use to paint jaguars, birds, magnificent pots and other figures are obtained from bee’s honey and crushed dark stones, and their color scheme—cream, honey and black—has not veered much from that used in the Classic Period, between 300 and 900 BC.

Just as they have been doing since time immemorial, the women fire their works in wood-fired kilns, then burnish and paint them. It can take anything from a fortnight to six months to finish a piece.

Naturally, the women of Amatenango have come up with their own designs and concepts. Women like Simona Gómez López, Feliciana Ramírez Díaz, Lucia López Gómez, Bonifacia Pérez López, Teresa Bautista Gómez, Juana Gómez Ramírez and Alberta Pérez Gómez, whose craftsmanship has been lauded in the United States and Europe. Their pieces are deemed works of art and can be seen in museum collections the world over.

But to the people of Amatenango, there is much more to clay: it is origin and survival. “Pottery-making is sacred because it feeds us our entire lives. If a piece breaks, we are sad because it means less money to buy beans, meat and other foodstuffs,” Juliana López Pérez told the journalist Elio Enríquez (La Jornada, April 8, 2007). So long live the clay of Amatenango del Valle!
In an interview with Negocios ProMéxico, Ximeña Caraza, general director of Casa de México en España, tells us about the great opportunity she was given to manage a space for Mexico to promote its artistic and cultural creativity as well as its business culture.

Both recognized and emergent creators will be invited to demonstrate their talents in a space that never remains static. “Mexico is very big, it has a lot of diversity, a lot of movement. So Casa de México en España will change its exhibitions constantly to accommodate all of Mexico’s brilliance: writers, artists, chefs, entrepreneurs... We don’t want anyone to miss out on being here,” says Caraza.

This new space will surely become one of the most attractive showcases for the wealth of expression coming out of contemporary Mexico’s artistic, cultural and business scenes.
—How did Casa de México en España come about?

Approximately 17 years ago, the governments of Mexico and Spain signed a reciprocal agreement by which each country committed to granting a space in its capital for its counterpart to promote its culture. In 2001, a building right behind the metropolitan cathedral of Mexico City was granted as a gratuitous loan to the Spanish government. In 2017, Spain reciprocated, giving Mexico a space in Madrid.

Mexico’s diplomatic corps in Spain has devoted enthusiastic effort to the project, and now Casa de México en España is a reality. Roberta Lajous, Mexico’s ambassador to Spain, was the one who sealed the deal with the Madrid city government, headed by Manuela Carmena. Mayor Carmena loves Mexico; she’s quite close to our country, and is a great admirer of the Fondo de Cultura Económica—as a girl she read books published by the cultural fund. With these precedents, negotiations for the transfer of the space to be occupied by Casa de México en España were smooth.

The space granted, the Mexican government saw the chance to involve various sectors in the project. This was how Valentín Díez Morodo, president of the Mexican Business Council for Foreign Trade, Investment and Technology (COMCE), got involved in the project with staunch economic and financial support for its development. To that end, the Casa de México Foundation was created.

Casa de México en España is, without doubt, a shared achievement between the government of Mexico and the private sector.

—A historic little palace in the Spanish capital—can you tell us a bit more about this building?

It’s a marvelous building with a lovely facade, and an interior to match of course. Located at number 20 of Alberto Aguilera, in Chamberí—an area known for its museums and cultural and gastronomic centers... We could not be better located! —the 2,700 square-meter building was constructed in the 1920s by the architect Luis Bellido.

—What’s there to see inside?

The ground floor is focused on gastronomy. Puntarena, one of Mexico City most acclaimed restaurants, is located there, and they’ll be offering everything from traditional Mexican breakfasts to fusion dinners.

On the same floor are the gastronomic halls, an area where Mexican and Spanish chefs can carry on a dialogue. We anticipate Mexican chefs and cooks using the halls to give classes on traditional Mexican cuisine. We also want to offer a space to emerging young chefs who are reinventing Mexican cuisine with a contemporary twist.

The idea for this floor is for it to have the tastes of Mexico, to showcase the country’s gastronomy through its regional history. It is intended to become a homage to Mexican food, which belongs to the Intangible Cultural Heritage of humanity.

On the first floor is a cinema, provided with generous support from Cinépolis, with a capacity for 60 people. Besides showing films, it will also function as an auditorium for talks, book presentations and debates.

On the same floor is the Martín Luis Guzmán bookstore of the Fondo de Cultura Económica and the MIMA (Made in Mexico con Amor) shop.

The second floor is devoted to art. Thanks to Fomento Cultural Banamex, we’ll have the chance to exhibit works by the great Mexican artists. We

“We seek to create a dialogue between the country’s past and present, between traditional Mexico and contemporary Mexico, to project an image of its future.”

XIMENA CARAZA, GENERAL DIRECTOR OF CASA DE MÉXICO EN ESPAÑA
won’t have permanent exhibitions, since we don’t want it to be a museum; the idea is for the exhibition halls to be in constant flux in order to offer a showcase of the most Mexican artists possible. We want Mexican creators with illustrious careers as well as emerging young talents to see Casa de México as an open space to present their projects.

We hope to have three major exhibitions per year—one every four months—and four to five smaller exhibitions, to change every two months.

The top floor is reserved for business promotion. This floor will have co-working spaces—the intent being to provide a meeting place for Mexican and Spanish businesspeople—meeting rooms, and a multiple-use room where we’d like to offer workshops and provide space for initiatives—such as danzón classes or Mexican piñata workshops—to present and promote aspects of Mexican culture.

Thanks to the alliance between the government and private initiative, Casa de México en España has many ingredients. Cultural promotion is certainly at the top of the list but a space for business promotion will also be offered. I’d say the core activity of the Casa de México is to promote the culture, business, tourism and gastronomy of Mexico.

—What exhibition inaugurated the art gallery?
Our first exhibitions are Three Centuries of Private Collections in Mexico—in which 40 works of great value will be exhibited by such Mexican artists as Diego Rivera, David Alfaro Siqueiros, Pedro Coronel and José Clemente Orozco, among others—and an exhibit by the Mexican contemporary artist Betsabeé Romero.

Casa de México en España seeks to create a dialogue between the country’s past and present, between traditional Mexico and contemporary Mexico, to project an image of its future. It will be a platform for young Mexican creators to display their talent, so that everyone who visits us will emerge with a much broader vision of the country’s diversity. I think this will become clear in our inaugural exhibitions.

—Up to now, who have been the private-sector sponsors of Casa de México?
Cinépolis, Grupo Milenio, Fomento Cultural Banamex, and Aeroméxico.

—If you had to describe Casa de México en España in just a few words, what would they be?
A window on Mexico in Spain.
MÓNICA PATIÑO
A MEXICO CITY LEGEND UNTO HERSELF

Mónica Patiño was born in Mexico City in the Fifties, when the skies were still clear blue and the streets weren’t crowded. “I remember it snowing one day I grew up here. I’ve lived in this big city my whole life except for two years—at 13 in Wales, Great Britain, and 16 in Coulommier, France, where, incidentally, they make some delicious and very famous cheeses...”

Her father had a very discerning palate, so Mónica learned at an early age about good food... giving rise to her love of cooking. But it was life that turned her into a chef; that forced her to learn to cook for herself when she left home; that taught her new skills every day until she finally took the plunge and opened her first restaurant, La Taberna del León in Valle de Bravo.

“I was my own apprentice. I realized there were a lot of things I didn’t know, but I also recognized how exacting I was. That’s what led me to do my own research, to explore and practice. And that’s how I gradually created my own cuisine, which is very much tied in with my personality. I found myself creating that small restaurant, where I became the boss and chef of my own handiwork.”

BY PAOLA VALENCIA
“Owning a restaurant is like staging a play: you solve problems behind the scenes and make sure the show goes on.”

—Your first restaurant was La Taberna del León in Valle de Bravo, but what was the first restaurant you worked in?
La Hacienda de los Morales in Mexico City. I had the chance to learn and practice a lot there.

—in true entrepreneurial spirit, you were very young when you opened your first restaurant. What was the most valuable lesson you learned at La Taberna del León?
I was very young, but somehow that shields you. I was naive, but had a lot of drive; a dreamer; but enthusiastic with it. I gradually came to define my character, my ways, my style. The best and most enriching thing about La Taberna del León was that it helped me forge my character. I discovered that life isn’t easy, but I also learned that anything is possible.

—Paris was your next stop. Why French cuisine?
My roots are in the Roma district of Mexico City, in a Mexico that looked to France, Asia and Europe in general. We wanted to incorporate and imitate this way of seeing the world and at the same time innovate. My grandparents implanted these ideas on Tabasco Street and I simply accepted and learned them and that’s how I chose my path, in the belief that was how things should be.

—For a long time you served up French recipes until one day you decided your true passion was Mexican cuisine. What made you come to that realization?
Before and after I returned from France, I had the privilege of sharing my father’s love of good food and good wine. I got to meet some of the best chefs and that influenced my career path.

I found unity in the Europe-Mexico duality. I realized there are some things that can only be understood from and with the heart. These two visions were not opposing; it was merely a matter of understanding, interpreting and integrating them in a well-choreographed dance.

—What is your favorite Mexican food?
Simple, well-made food that understands a good tortilla is made with a good dough, because in my book, the tortilla is the foundation of good Mexican cuisine.

—How would you define your cuisine?
Capricious, spontaneous and fresh, but above all fun. It’s a constant that makes your patrons more likely to remember you—and want to come back. I always remind myself it has to be simple, without pretension.

I like to take it beyond the more run-of-the-mill techniques.

I learned Japanese, Thai and French cuisine in Mexico. I use them all and that’s what my cuisine is all about—understanding them and borrowing what I need from each.
“Inspiration comes from what we know, from our experiences, but it requires taking things a bit further. It’s about getting past your fear and taking risks. You correct and present your dish. You present it to yourself and that gives you confidence.”

—Is there any particular flavor or smell that reminds you of your childhood?
I can remember things from when I was as young as four. I remember being in our kitchen at home, which was where it all happened.

There’d be serrano chili peppers and tomatoes roasting on a hotplate and ice cubes rattling in a glass jug, ready to make the day’s lemonade. I also remember tortillas with salt, rolled up tight into tacos. The words ‘Here sweetie, eat this tortilla with salt’ are engraved on my memory!

—Delirio de Mónica Patiño in the Roma district of Mexico City has become iconic among lovers of good food. How did you come up with the store-restaurant concept?
When I was running La Taberna del León in Valle de Bravo, I was very young and was starting my own family.

It was a very small restaurant—it could only seat 40—and we only opened on the weekends, which left me time to practice and make things like conserves, cookies and cakes at home during the week. That’s where I got the idea of opening a “store” where I could sell them.

When I came back to Mexico City, I worked on the opening of concepts like La Galvia and MP Café Bistro in Polanco, Bolívar 123 in the Historic Center, Naos in Las Lomas and La Taberna del León in Plaza Loreto.

The years passed and I still hadn’t had the chance to open my store, until one day on my way home from work, I walked past a corner in the Roma district where I lived and saw an “Ultramarinos Bilbao” convenience store that had closed down. Right there and then I knew that that was where I was going to recreate the store I had in Valle de Bravo.

—What would you say was the before and after of your career?
I’m a firm believer in the right timing and I was very lucky in that sense. I was born at a time when opportunities abounded. It’s not something I planned. I just got on with the day-to-day and that’s how my culinary story took shape spontaneously, without even realizing it.

—What is your philosophy as a restaurant owner?
As soon as I arrive, I give the place a once over, smile and say hello to my team. I like greeting them. I’m very fond of them. They’re like family to me and that affection extends to the people who visit us. It makes me happy to see them having a good time.

And even in difficult times or circumstances, you have to take a deep breath and smile. Owning a restaurant is like staging a play; you solve problems behind the scenes and make sure the show goes on.

—Who or what inspires you when you’re creating a dish?
Inspiration comes from what we know, from our experiences, but it requires taking things a bit further. It’s about getting past your fear and taking risks. You correct and present your dish. You present it to yourself and that gives you confidence.

—Where does Mónica Patiño eat when she wants to try new flavors?
I don’t have any favorite restaurants. It all depends on the situation—if it’s close, if I can get there on foot or by bicycle. It also depends on my frame of mind and the circumstances.

I admire places like Havre 77, the modern cantina concept like El Amaya de Jair Téllez on General Prim; the downtown classics like the Danubio and the Bellinghausen; the atmosphere at Elenita Reygadas’ restaurant Rosetta; the quesadillas on the corner of Puebla and Orizaba in the Roma district, where some women make the journey every day from Toluca to Mexico City to set up their street stall; the MOG Bistro, a casual, but well-accomplished restaurant owned by some Japanese friends; the Farmacia Internacional café near where I live. It’s this diversity I like. I love the wealth of options in the Roma district where I live.

—We know you love markets. Which ones do you find most inspiring?
These days it’s hard to find a market in Mexico City, by which I mean a good market, one where you can find small local producers.

The markets where you can still find them are in outlying towns like Tepoztlán and Valle de Bravo, to mention just a couple. It’s in places like these that the traditional Mexican market lives on, where you can find honest producers and a huge variety of local products.
SEA BASS CEVICHE TOSTADA

BY MÓNICA PATIÑO

Tostada topped with sea bass ceviche and green pico de gallo salsa

Ceviche is a marinated fish dish that is popular in coastal areas in Mexico. It can be made from any type of fish and certain seafood, which are cooked by marinating them in lime juice. The rest of the ingredients will depend on the chef’s creativity. Mónica Patiño shares with us her recipe for her delicious sea bass ceviche served classic Mexican-style on a crisp corn tostada.

Ceviche Tostadas

**INGREDIENTS:**
- 10 SMALL CORN TOSTADAS
- 500 G SEA BASS CUT INTO 1/2 CM CUBES
- 140 ML SALSA

**PER SERVING**
- 1 TOSTADA
- 1 TEASPOON HOMEMADE MAYONNAISE
- 3-4 SLICES OF AVOCADO

**INSTRUCTIONS:**
- **TOP WITH THE CEVICHE, SOME SHREDDED CABBAGE AND DECORATE WITH MIXED SHOOTS.**
- **BLEND THE MARINATED FISH WITH THE PICO DE GALLO SALSA.**
- **SPREAD SOME MAYONNAISE ON EACH TOSTADA AND TOP WITH SLICES OF AVOCADO. USE A SPOON TO HELP SCOOP THEM OUT AND PRESS DOWN LIGHTLY TO FORM A BASE.**

Salsa

**INGREDIENTS:**
- 130 ML GREEN LIME JUICE
- 1 TEASPOON SEA SALT
- 10 ML SOY SAUCE
- 1 TEASPOON FINELY SLICED GARLIC (REMOVE THE CORE)
- 1 TEASPOON PEELED, GRATED GINGER
- 1/4 TEASPOON GROUND BLACK PEPPER

**INSTRUCTIONS:**
- **MIX ALL THE INGREDIENTS IN A BOWL.**

Green Pico de Gallo Salsa

**INGREDIENTS:**
- 60g DICED PITTED GREEN OLIVES
- 60g BABY CAPERS (DRAINED)
- 120g DICED RED ONION
- 2 TABLESPOONS RICE VINEGAR
- 4 TABLESPOONS OLIVE OIL
- 4 TABLESPOONS ORANGE JUICE
- 30g CILANTRO WITH THE STEM ROUGHLY CHOPPED
- 10g MINT LEAVES

**INSTRUCTIONS:**
- **MIX THE OLIVES, CAPERS, RED ONION, RICE VINEGAR, OLIVE OIL AND ORANGE JUICE IN A BOWL.**
- **ADD THE CILANTRO AND MINT AND BLEND ALL THE INGREDIENTS TOGETHER, SEASON TO TASTE.**

**CONSERVATION:**
- DO NOT KEEP FOR LONGER THAN A DAY IN REFRIGERATION.
Cuando la producción en masa puede cumplir con necesidades individuales. Incluso las de Karla. Eso es Ingenio para la vida.

Hasta ahora, los procesos de producción eran o rápidos o flexibles. Las máquinas inteligentes han cambiado eso. Para una empresa de cosméticos esto significa ser capaz de producir un rango completo de champús utilizando una sola línea de ensamblaje. Significa ser capaz de poner sus productos en los estantes en la mitad del tiempo. También significa ser capaz de reaccionar de manera eficiente a las demandas del cliente, incluso a las más particulares. Esto importa porque es una ventaja competitiva para el fabricante. Y básicamente vuelve real lo que importa al abrir muchas nuevas posibilidades para todos. Y eso es Ingenio para la vida.

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